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A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

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## FUTURE FOR SOUTHERN RAILROADS.

THE possibility of war with Mexico naturally prompts thoughtfulness concerning transportation facilities, which always have an important part to perform in seasons of conflict between nations. At first one might think that war could not do otherwise than stimulate railroad business everywhere in the Southern States because of the proximity of our Gulf ports to the eastern ports of Mexico, but reflection suggests that only a portion of the movements to the front would be conducted by way of such a route; how large a proportion remains to be learned, for the reason that it would be more convenient in sundry instances to embark both men and supplies at ports on the North Atlantic coast instead of conveying them by rail a thousand or more miles to the seaport nearest to their destination. Hence it will not be known until a great military movement is actually in progress just how great a part of it will go via one route and how much over another, because conditions under some circumstances may compel all haste possible to be made, and then whichever route would promise the shortest time between terminals would have to be chosen.

As to the abilities of the railroads to do their part in the exigencies of the occasion, it must be remembered that they are in far better position to render military service than they were 16 years ago when the war with Spain was fought. They are much stronger in volume of equipment, as well as in the matter of tracks and terminals. Considerable double track has been built since then on main lines and more is being constructed. Moreover, some of the single-track roads, in consequence of better signals and improved methods of operations, have greatly increased their traffic capacity. In addition to all this, some extensive work is being done, as in the case of the Louisville & Nashville Railroad, which is providing itself with what will be practically a new railroad from Nashville to Birmingham, the betterments including not only second tracking, but in large part the construction of an entirely new double-track line for about 70 miles. The Southern Railway and the Illinois Central Railroad have also done a great deal of second tracking and will do more. Generally the lines are upon a much higher plane of maintenance than they were when Cuba and the Philippines were the scenes of military operations against a foreign power.

Although the railroads would directly gain traffic in consequence of the military movements, it must not be forgotten that they may also lose because of reductions in the output of farms and factories and a halting of commerce, all of which may be unfavorably affected by war either through shortage of labor or business depression. The promptness

with which the General Government has notified the members of the National Guard to prepare for service in the field indicates that a shortage of men in agriculture, commerce and industry will probably be the initial manifestation at home of the fact that a war has begun. As for the other condition—depression of general business—time will tell whether such will be the case. Nevertheless, it is a foregone conclusion that certain lines will assume unwonted activity because they will be more or less directly engaged in providing supplies for our military forces, and although it is not unreasonable to expect widespread activity if the hostilities just begun develop into a lengthy war, it may not with confidence be assumed that such a consequence is inevitable.

Thus the general outlook for the railroads in the Southern States is quite encouraging; they are reasonably assured of their average increase of gross earnings at the end of the calendar year, and there is a possibility, if not a probability, that there will be an unusually large increase. Even at the outset of what may be a long and expensive war the transportation lines of the South have no reason whatever to look ahead with other than feelings of faith in the future respecting their welfare.

## GOOD ROADS AND GOOD FARMS.

WHERE you find a good system of public roads you invariably find improved farms; you find better stock, better homes, better outbuildings. You will also find more and better schools, better churches than you can find where the public roads are neglected.

Such is the text of a short admonition by T. F. Peck, commissioner of agriculture of Tennessee, to the farmers of his State to speed the improvements of its highways. He favors, because he regards it as a good investment, the spending of sufficient money to build a first-class system of improved roads in every county in Tennessee as one of the surest means of bringing to the highest development the great variety of the State's soils and the resources of the State on all lines. He points to results already manifest in counties where road improvement has been made as the promise of greater things when the improvement shall have become more general. Men in the position of Commissioner Peck holding such views as his are among the most efficient workers for good roads in the South, and their campaign will undoubtedly be strengthened by the meeting in Atlanta next November of the American Road Congress. The South is spending about \$50,000,000 a year in the building and maintenance of roads, and such liberality is a practical expression of the enthusiasm in the cause advocated by Commissioner Peck. At the Atlanta Congress will be given the opportunity for Southern good-roads men to get into close touch with experts on all points of highway construction, and the very fact of the gathering of such a representative body in such an important center is bound to beget greater practical enthusiasm for good roads in the South.

## SOUTHERN-MADE SHOES.

ANNOUNCEMENT last week of the acquisition by the Craddock-Terry Company of Lynchburg, Va., which has made such a notable record in shoe manufacturing, of the manufacturing and wholesale shoe business of Burrow, Jones & Dyer Shoe Co. and the Kout-Reith Shoe Co. of St. Louis is a signal illustration of the growth of manufacturing industry in the South. This consolidation is expected to result in most desirable reciprocal advantages between the factories in Lynchburg and

those in St. Louis and Louisiana, Mo., with the result of strengthening the common manufacturing and distributing positions already held. The Craddock-Terry Company proposes to continue to give, as heretofore, most of its attention through its Lynchburg house to the territory south of the Ohio and Potomac and east of the Mississippi rivers, with the St. Louis house concentrating and developing its efforts upon the middle West and Southwest. Again the South's ability as a manufacturer of shoes is given practical publicity.

## SUMMONS OF THE SOUTH.

### IV.—STRANDS OF COTTON.

LINKING agriculture, manufacturing and commerce, and even touching the domain of mining, the cotton of the South holds a unique place in world economy. The cotton plant is about the only plant whose products enter in any large measure into the clothing, the shelter and the food of mankind. Its especially favorable habitat, because of soil and climatic conditions, is an area embracing quite 600,000,000 acres in the South, stretching from Virginia to Texas. Upon 36,000,000 of those acres are now being produced annually from 14,000,000 to 16,000,000 bales of cotton, averaging for the past 10 years about 65 per cent. of the cotton crop of the world. In recent years there has been a tendency in other parts of the world to raise a larger proportion of the annual crop, and, at the same time, there have been changes in the relative advantages which the South has derived from its great crop, constituting, with its seed, about 30 per cent. of the total value of Southern farm products, not including livestock, and about 13 per cent. of the total value of such products in the United States.

In 34 years from 1880 to 1913 the commercial crops of American-grown cotton aggregated 318,893,980 bales, of which Southern mills consumed 43,246,299 bales and mills in the rest of the country consumed 67,036,747 bales, a total of 110,283,046 bales. Mills of this country consumed in that period less than 35 per cent. of the cotton grown in the South, and Southern mills less than 14 per cent. But while the South has been sending to the rest of the country and to other parts of the world for manufacturing about 86 per cent. of its valuable crop, it has gradually been increasing its own use of its raw material. In the commercial year ended August 31, 1880, the 179,000 bales used in its mills was just about 10 per cent. of its cotton used in all the mills of the country and about 3 per cent. of its crop. In the year ended August 31, 1913, the 2,909,559 bales consumed by Southern mills were nearly 55 per cent. of the cotton consumed by all the mills of the country and more than 20 per cent. of its crop.

### SOUTH'S CONSUMPTION OF THIRTY-FOUR COTTON CROPS.

| Year ended       | Crop.       | Consumption. |            |
|------------------|-------------|--------------|------------|
|                  |             | South.       | North.     |
| Aug. 31,         | Bales.      | Bales.       | Bales.     |
| 1880.....        | 5,761,252   | 179,000      | 1,610,978  |
| 1890.....        | 7,311,322   | 546,894      | 1,799,258  |
| 1900.....        | 9,436,416   | 1,597,112    | 2,068,300  |
| 1910.....        | 10,609,668  | 2,341,303    | 1,993,904  |
| 1913.....        | 14,167,115  | 2,969,559    | 2,488,377  |
| Total 34 crops.. | 318,893,980 | 43,246,299   | 67,036,747 |

NOTE.—These figures are for cotton-growing States of the South.

This increased consumption, which has been accompanied by a diversification represented in quite a hundred different kinds of products, is reflected in the increase in the South's equipment of spindles and looms. Last year 12,418,791 spindles were at work in its mills, 1,765,356 more than were operated

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in the whole country in 1880, and its 250,556 active looms numbered 33,797 more than the looms in the whole country 33 years previously. The Southern mills consumed 1,433,503,787 pounds of cotton in 1913, nearly thirteen times as much as in 1880 and nearly twice as much as the whole country in that earlier year.

**TEXTILE ACTIVITIES IN THE SOUTH AND IN THE WHOLE COUNTRY COMPARED BY DECADES.**

| Year ended<br>Aug. 31,    | The<br>South. | United<br>States. |
|---------------------------|---------------|-------------------|
| 1880... Active spindles.  | 687,066       | 10,653,435        |
| Active looms...           | 14,754        | 225,759           |
| Cotton used, lbs.         | 111,777,177   | 750,343,981       |
| 1890... Active spindles.  | 1,719,600     | 14,188,103        |
| Active looms...           | 39,445        | 324,866           |
| Cotton used, lbs.         | 279,728,025   | 1,117,945,776     |
| 1900... Active spindles.  | 4,467,383     | 19,050,952        |
| Active looms...           | 113,106       | 455,752           |
| Cotton used, lbs.         | 749,915,066   | 1,817,643,390     |
| 1910... Active spindles.  | 11,149,465    | 28,611,000        |
| Active looms...           | 236,845       | 682,000           |
| Cotton used, lbs.         | 1,121,960,467 | 1,838,127,768     |
| 1913*... Active spindles. | 12,418,791    | 31,519,766        |
| Active looms...           | 259,556       | 720,000           |
| Cotton used, lbs.         | 1,433,503,787 | 2,622,871,292     |

\*Partly estimated.

NOTE.—These figures include the mills of Maryland.

In those facts are the suggestions of the possibilities for investment in the textile industry of the South, both in increasing the activities of existing plants and in the establishment of plants at points where there is none today. In this connection it should be noted that those Southern States which raised more than 50 per cent. of the cotton crop of 1912-13 took for their mills only 2 per cent. of the portion of the crop that they raised, and but two States—Virginia and Kentucky, and they growing but a comparatively small amount of cotton—manufactured more cotton than they raised. The prophecy of the South written in its textile progress of the past 30 years may not be fulfilled in as many years, but far-sighted capital can make it possible, under the wise conviction that as long as a single bale of cotton is exported from the South, so long will the limit of the textile industry in the South be unattained, for the South to produce two or three times as much cotton as it is now making without increasing its cotton-growing acreage and for its mills to be consuming three or four times as many bales as at present.

**VALUE OF COTTON CROP WITH SEED COMPARED WITH VALUE OF GOLD AND SILVER PRODUCED BY DECADES AND IN THIRTY-FOUR YEARS.**

| Cotton Crop with Seed.   | Gold and Silver Produced. |
|--|---------------------------|
| Year ended<br>Aug. 31,   | Year ended<br>Dec. 31,    |
| \$325,000,000  | \$192,379,897             |
| 411,000,000  | 1889.... 235,902,150      |
| 416,000,000  | 1899.... 407,985,811      |
| 903,000,000  | 1909.... 564,011,619      |
| 998,000,000  | 1912.... *580,000,000     |
| South's cotton crop, including seed, in 34 years, value.....       | \$17,450,000,000          |
| World's production of gold and silver in 34 years, value.....      | \$11,674,000,000          |
| Excess of cotton value over gold and silver value in 34 years..... | \$5,776,000,000           |

\*Partly estimated.

The importance of industry based upon the cotton plant appears in the fact that in the last census year the value of the outputs of blast furnaces, iron and steel works and rolling mills was \$1,377,152,000, and the value of cotton goods, including hosiery and knit goods, and of primary products of cottonseed was \$915,070,000. So much for the relation of the plant to industry in this country. But it has a much farther-reaching influence, not only in world industry, but in trade and commerce.

Thirty-four cotton crops, with their seed, have been worth an aggregate of \$17,450,000,000, or \$5,776,000,000 more than the value of the output of all the gold mines and silver mines in the world in 34 years. In none of those years has the value of the output of gold mines approached the value of the cotton crop, with its seed, in that year.

In the same period the exports of raw cotton have aggregated in value \$10,237,817,000, or \$2,138,817,000 more than the value of the output of the gold mines of the world, and in only five of the 34 years between 1879 and 1912 did the value of the output

of gold exceed the value of the exports of cotton from the South.

Products of the cotton plant—raw cotton, manufactured cotton, cottonseed-oil cake and meal—represent about 30 per cent. of the annual export merchandise values of this country. In the fiscal years between 1880 and 1913 merchandise was exported from Southern ports to the value of \$14,451,804,689, and that value was nearly 35 per cent. of the value of merchandise exported from all the ports of the country in that period. The exports of raw cotton from all the ports of the country in the 34 years aggregated \$10,232,639,333, which was equal to nearly 25 per cent. of the \$41,617,712,344 worth of all merchandise exports.

**VALUE OF RAW COTTON EXPORTED COMPARED WITH VALUE OF GOLD PRODUCED BY DECADES AND IN THIRTY-FOUR YEARS.**

| Raw Cotton.                            | Gold Produced.                |
|--|-------------------------------|
| Year ended Exports,<br>Aug. 31, value. | Year ended<br>Dec. 31, Value. |
| 1880.... \$209,852,005                 | 1879.... \$108,778,800        |
| 1890.... 250,569,334                   | 1889.... 123,489,200          |
| 1900.... 245,652,268                   | 1899.... 306,724,100          |
| 1910.... 460,710,176                   | 1909.... 454,145,700          |
| 1913.... 551,962,000                   | 1912.... *465,000,000         |

Exports of South's raw cotton in 34 years, value..... \$10,237,817,000  
World's output of gold in 34 years, value..... \$8,099,000,000  
Excess of cotton exports value over gold output in 34 years..... \$2,138,817,000

\*Partly estimated.

**PROPORTION OF RAW COTTON EXPORTS IN EXPORTS FROM THE SOUTH AND IN TOTAL EXPORTS FROM THIS COUNTRY BY DECADES.**

| Fiscal year ended<br>June 30, | Total<br>exports of<br>raw cotton. | Total<br>exports from<br>Southern<br>ports. | Total<br>exports from<br>United<br>States. |
|-------------------------------|------------------------------------|---|--|
| 1880.... \$211,535,905        | \$264,905,753                      | \$835,638,658                               |  |
| 1890.... 250,968,792          | 311,742,748                        | 857,828,684                                 |  |
| 1900.... 241,832,737          | 484,651,682                        | 1,394,483,082                               |  |
| 1910.... 450,447,243          | 628,529,790                        | 1,744,984,720                               |  |
| 1913.... 547,357,195          | 822,287,017                        | 2,465,884,149                               |  |

Total in 34 years—Exports of raw cotton, \$10,232,639,333; total exports from Southern ports, \$14,451,804,689; total exports from United States, \$41,617,712,344.

No one factor was more influential than cotton in the making of the history of the United States after 1790. The invention of the cotton gin determined that the South should be for more than a century dominant in the production of cotton. Without the cotton gin, making possible the handling of a far greater crop than under the old hand methods of preparing the lint for the spindle, the special opportunity for the profitable employment of bondsmen in agriculture would have gradually diminished, and the institution of slavery in the South, instead of expanding, would have become a negligible quantity, socially, economically and politically, and not the occasion for the first great conflict at arms in this country originating essentially in age-long differences of conditions and viewpoints; the natural inclination of the South to maintain its relative status in manufacturing would not have been suppressed for two or three generations; the capital and the energy released with the passing of legalized slave-trading would not have been able to give New England at home and abroad its tremendous advantage in commerce and manufacturing and its consequent weight in Federal legislation, and if any sectionalism had developed the line would have been drawn north and south instead of east and west across the country.

Cotton wrote history otherwise. The marks of the writing have not faded and are worth study for the suggestions they may carry, in spite of the fact that Southern cotton mills today are consuming more cotton than the South produced in 1868, and that the seed are worth nearly as much as the cotton crop of 1860. Cotton in statesmanship was sharply disappointed in discovering, 50 years ago, that the staple was not powerful enough either to avert war, or, war having come, to induce intervention for its ending. Statesmanship in cotton will not permit the facts of the present, impressive as they are, to lull it into a feeling of false confidence that what has been and is must always be. On the contrary, it will see in the tendency of the South to raise a smaller proportion of the world's cotton not neces-

sarily the forecast of a decline in the power of the South in world economy, but certainly the strongest sort of reason for making the most of its potentialities as a cotton grower. The South can raise its 15,000,000 or 16,000,000 bales of cotton on 18,000,000 of the 36,000,000 or 38,000,000 acres now devoted to the crop and throw the remaining acreage into the raising of other crops yielding far more to the acre. Instead of spinning only 2,900,000 of its bales, it can spin and weave four times as many without reducing the supply of the raw material it furnishes to the rest of the country, and export in finished goods to a much greater value than that represented today in the annual exports of \$500,000,000 or \$600,000,000 for the raw material. Two counties of England, which raise not an ounce of cotton, but import all they use, have 942,000 people employed in their textile trades. The South has hardly one-eighth as many in its mills. Halving its cotton acreage, and using it to the best advantage, the South, by manufacturing 70 per cent. of its cotton crop instead of exporting it raw, can double and quadruple the returns. It is now receiving from the crop, and at the same time increase the weight of its staple in the commerce of the world.

**MORE INCOME TAX DIFFICULTIES.**

**W**ITHIN about a month of the time when the individuals subject to the new Federal income tax are to receive their bills from the Commissioner of Internal Revenue comes another indication that the tax is not likely to yield as much revenue as was confidently expected by the incompetent framers of the income tax law. Says the New York *Journal of Commerce*:

Secretary McAdoo has announced that the Commissioner of Internal Revenue has by his direction formulated plans for checking up income tax returns in order to detect evasions of the law. As a first step, information is to be secured of "the stockholdings of all citizens and residents of the United States, and the amount of income derived therefrom by each stockholder." This is a pretty formidable step to take, and one likely to cost more than it comes to. It involves getting at the amount of capital stock of all the corporations in the country, great and small; the number of their shareholders and the amount held by each and the dividends paid. When that was done it would prove nothing as to evasion of the tax, for a comparatively small part of income is derived from that source, and it shows nothing regarding deductions.

Only a small part of the holders of corporate stocks would prove to be subject to the tax if all the facts should be accurately ascertained, and there would be no means of determining from the figures obtained which they were. After this first step had been taken with much labor and expense, it would only be a beginning. All other sources of income would have to be looked into with equal scrutiny before it could be decided whether there was evasion in the returns. Forms are to be sent out to all the companies for their statement of amount and value of stock, names and addresses of stockholders, dividends paid, etc., which would impose a good deal of expense upon them.

A fundamental principle of just taxation is ignored in this whole business—that which requires that collections shall be easy and certain and economical. This income tax applies inequitably to a relatively small number of persons, but returns are required from a very large number not subject to the tax. A great deal of expense is involved in finding out who are subject to it and in finding out what their taxable income is, and a great deal is imposed upon them in addition to the tax. Then there must be costly methods of preventing evasion without any possibility of actually preventing it in the end. There will always be a great deal of it under any such system so long as people are not truthful and conscientious in assessing themselves and paying all that is due. The system itself and every effort to apply it strictly is demoralizing to personal and national character.

In spite of a distinct provision of the law to the contrary, the effort was made in framing the form for the return of personal incomes to compel the information as to stockholdings of citizens now sought to be obtained in another way. It required persistent hammering to induce the Internal Revenue Office to rule at the eleventh hour that, as the law distinctly prescribed, persons liable for the normal income tax only should not be required to make return of the income derived from dividends on the capital stock of corporations taxable upon their net income. Dividends are paid from net income, and, therefore, having been taxed once as corporation income, they could not be taxed again as individual income. That point the MANUFACTURERS RECORD long maintained. Its belief, equally long maintained, that the revenue from the income tax would

fall short of expectations, was based upon the conviction that the inchoate state of mind that had dominated in the framing of the law and persisted in the framing of the Treasury regulations under the law had overlooked the plain provision of the law as to dividends and had counted the income from them twice—once in the income of corporations and again in the income of individuals. As a matter of fact, a person having an income solely from dividends on the capital stock of corporations up to as great an amount as \$20,000 is not liable to the personal income tax and is not compelled to report his income. When, therefore, the incomes under \$20,000, consisting exclusively of such dividends or incomes which, exclusive of such dividends, are less than \$3000, are disregarded, as they should be in any accurate and valuable estimate, a considerable falling off from the estimate upon which the law was based is to be expected. The state of mind which prevailed in framing the law and the regulations under it apparently held the theory that the great mass of persons in this country liable to direct taxation were essentially dishonest, a theory which every-day experience can hardly substantiate. It may be natural for such a state of mind to attribute returns less than those estimated, not to its own limitations, but to evasions by taxables. We, however, believe that the elaborate plans for the detection of evasions can result only in increasing and complicating the difficulties of the Treasury Department in attempting to administer the law, and we further believe that if the time and the energy and the money which have been spent—much of them wasted—since the law went into effect six months ago had been devoted to formulating pressingly necessary changes in the law and inducing the Congress to make them, the outcome of the first assessment under the law would be much more satisfactory than that now promised.

#### SARDINES" AND "OLIVE" OIL.

**I**N a pleasant, gossipy way the *Boston Transcript* tells of the sardine canneries of Eastport and Lubec in Maine, where there is not even one sardine used. The little fish which are brought in to these places by the dory-load from the Bay of Fundy are not really sardines, but they are quite as wholesome and look like sardines, and no one, as the *Transcript* points out, is deceived, and everyone who eats them is satisfied. The genuine sardines are supposed to be tinned in olive oil. But much that passes for olive oil in this country is really cottonseed oil, just as nutritious. The interesting fact about the sardine canneries in the jumping-off place in Maine is that the casual observer strolling on the wharf where the tiny Bay of Fundy fish are landed into the canneries need not be surprised to see many, many barrels distinctly proclaiming in letters that they are filled with cottonseed oil from the South.

#### Norfolk Chamber of Commerce.

The Chamber of Commerce of Norfolk, Va., which has a membership now of 1700, has elected for the ensuing year Barton Myers, president; Nathaniel Beaman, Fergus Reid, John L. Roper, Robert F. Baldwin, vice-presidents; Tench F. Tilghman, treasurer, and F. S. Royster, C. W. Grandy, C. L. Wright, S. L. Slover, H. G. Barbee, J. W. Hough, J. P. Andre Mottu, W. J. Harahan, C. W. Priddy, Robert I. Bosman, W. W. Gwathmey, J. O. Reid, W. G. Swartz, T. S. Southgate and H. L. Lowenberg, directors.

#### \$250,000 Extract Manufacturing Company.

Cherry River Extract Co., Richwood, W. Va., has been incorporated with a capital stock of \$250,000 by John Mulready and C. W. Seeley of Richwood, Geo. H. Kerr of Lynchburg, Va.; J. H. Agnew and Geo. H. Cowan of Chicago.

Finished products, from eight-penny wire nails to steel strands for wire cables, of the American Steel & Wire Company's plant at Fairfield, Ala., have been placed on exhibition at Birmingham.

## Fourth National Drainage Congress

[Special Correspondence Manufacturers Record.]

Savannah, Ga., April 25.

Advocacy of nationally supervised and Government-backed plans for swamp land drainage and flood control of rivers was given a more practical phase and more vigorous life at the fourth annual meeting of the National Drainage Congress, just held here, than ever before known in the long history of the movement.

In short, it would appear that the end is now in sight; that all the forces are now combining, and that definite, tangible plans, endorsed by individuals, communities, States and national authorities, are coming together in a harmonious plan that will be made effective at the earliest possible day.

Though not great in numbers—but few more than 300 delegates being registered—the personnel of the congress was notably brilliant in attainments and standing for those attending were almost entirely recognized authorities—national and international—on subjects of engineering, sanitation and legislation. The papers were most illuminating, the speaking thoroughly instructive and the concord amazingly profound. There were no acrimonious debates, not even one discordant note. A rapid crystallization of opinion seems the explanation that applies, and almost it appeared that so much has happened in recent months to clear away confusion and establish a common ground for action that so far as the practical aspect of the case might go, the officers and committees of the congress didn't need to call a meeting to receive authority and endorsement; they could have gone right on with authority of the carte blanche sort.

Most effective work has manifestly been done by officers of the organization in recent months. The President and the Secretary of the Interior have taken hold, and the Drainage Congress is justified in expecting that a national drainage and flood control bill will be made an administration measure as soon as Mexican complications and other matters of immediate concern are out of the way. A plan is already being worked on by which departmental sponsorship will be secured, and a bill prepared and offered which all may support. A "get-together-and-do-something" spirit pervades all quarters, as every indication shows, which promises to see a real tangible beginning made before many months roll by.

In all the years since agitation for Government control of flood prevention began, and Government aid in land drainage has been urged, there have been some 37 bills on that subject introduced in the National Congress. None have received united support, either in or out of Washington. Last September a bill was introduced in the House by Speaker Champ Clark and in the Senate by John Sharp Williams, and known as the Clark-Williams bill, which was the result of long study and many conferences by engineers, congressional committee men and others, including Cabinet officers and the President as well. While not intended to be the final word, this bill was looked on as providing a working basis for a measure which in final shape would meet with the approval of the country at large and secure the endorsement of the administration itself.

Briefly, the bill proposes to make an appropriation of \$20,000,000 as the nucleus of a flood protection and drainage fund, to be added to by moneys received from public land sales to the extent of another \$10,000,000 or so, "to be used under the direction of the Secretary of the Interior in the examination and survey for and the construction, operation and maintenance of drains, canals, holding basins, reservoirs, levees, dikes, revetments, mattresses, tree-planting, sluiceways, pumping plants and other works wherever needed for the prevention of floods or for the protection, drainage or reclamation of overflowed lands, swamp lands and lands too wet for agricultural purposes, all of which are dangerous to public health." The government is to be authorized to take entire charge of reclamation projects, on request, and to purchase drainage district bonds at par, thus enabling individual owners to act independently and on their own initiative, at the same time assuring them of the needed funds for drainage work, now not readily or certainly to be obtained.

Various other sections provide for flood protection and waterway improvement, and it is declared that as a whole it is a simple, practical measure, easily applicable to any part of the country needing relief; that it will not prove burdensome to the Government, and will

not remove any of present incentives to individual activity.

In an effort to reach a full and final agreement all around, an invitation to appear before Congress has been extended to Sir William Willcocks, builder of the Assouan dam, and world-famous engineer and authority on drainage, irrigation and levee construction, who came all the way from Cairo, Egypt, to attend the Savannah meeting; Edmund T. Perkins, irrigation and drainage expert and twice president of the Drainage Congress, and Col. E. J. Watson, successor to President Perkins, and long identified with drainage and development matters in the South. They are asked to appear at the meeting of the Rivers and Harbors Committee in Washington next Tuesday. Secretary Lane is working with an interdepartmental committee, which has definite plans for a board of river regulation, four members of which would be Cabinet officers, and Senator Francis G. Newlands, for and against whose Newlands bill a strong stand has been taken in various sections, has endorsed the steps now being taken, telegraphing hearty approval to the Savannah Drainage Congress and expressing the hope that all may now get together. In addition to these public manifestations, private and personal assurances are given that differences are disappearing, and that ample justification exists for the belief that measures will soon be started for the national control of the Mississippi and its tributaries and for governmental aid—the governmental backing of drainage bonds being about all that most individuals would ask—in the drainage of the millions of acres of swamp and wet lands the county contains.

Over and over again, in the papers and speeches at this Drainage Congress, the incalculable advantage to the South that would follow drainage and flood control was pressed home. The billions of dollars of added value which would be given was only incidentally stressed. The need of these new lands for their prolific food-producing qualities, their possibilities as homes for an added population and the great improvement in conditions for health that would come through drainage were emphasized as most important considerations in the case.

There was an embarrassment of riches in the program arranged, and although none of the Washington contingent could get away, substitutes dropped in to swell the number of speakers well up to the fifty or so the program originally contained. The briefest sort of a synopsis would thus fill pages of space. Arrangements were made by the congress for a full stenographic report of the proceedings. It will be out in the course of weeks, and will constitute a comprehensive compendium of the subjects involved.

President Wilson, Vice-President Marshall, Secretary Lane, Secretary Daniels and Speaker Clark had been invited, and Messrs. Lane and Clark, along with half a dozen or more of Senators and members of Congress, were on the program of speakers. The Mexican situation prevented any of them from leaving Washington. Many of them sent messages of good wishes and regret, President Wilson's being to this effect:

"Hon. E. J. Watson, Savannah, Ga.:

"I am sincerely sorry that it will not be possible for me to be present at the Drainage Congress. Since I cannot be, will you not express to the members of the congress my deep interest in the great subjects they will have under discussion and my sincere desire to be of service in solving the great problems, which are after all the problems of national prosperity, to which they are so intelligently addressing their attention."

WOODROW WILSON.

"By J. P. TUMULTY, Secretary."

At the opening session, after welcoming speeches by Governor Slaton and a representative of Mayor Davant, he being ill, President Perkins, in the course of his response, spoke of the necessity of Southern people standing behind the drainage project and making so insistent a demand that the authorities at Washington would be impressed with the earnestness of their purpose. Mr. Perkins, a native of Virginia, has been in the West ever since his graduation as an engineer, and he commended the Western hustle that went after the things they want instead of waiting for somebody to bring them along. The millions and millions of acres of idle Southern lands, idle because undrained, could be easily and cheaply reclaimed. It had cost \$86,310,271.16 to reclaim 930,000 acres of arid lands in the

West, or nearly \$90 an acre, while Southern swamp and wet lands could be drained for an average of \$20 or perhaps \$10 per acre. The erroneous impression prevailed, he said, that the Government-reclaimed lands of the West were Government-owned lands. On the contrary, of the 3,000,000 acres reclaimed, less than 1,000,000 were Government lands, more than 2,000,000 being privately owned. It was stated that when the bill was prepared it read "for the reclamation of the lands of the United States," when a Southern Senator put in the word "arid." When they began the work of reclamation they were unable to find large bodies where the entire ownership was in the United States. The law was then construed to mean "arid lands which lie within the United States." As originally drawn, the South might have benefited, but now a new enactment is required. As it is the Government has spent over \$50,000,000 in this work in the West, and the Secretary of the Interior is asking for \$1,000,000 more. The aim and intent of the bill proposed to help drainage in the South is co-operation, not interference with the rights or activities of the States or individuals.

It is a matter of history that Mr. Perkins was for a long time identified with the National Irrigation Congress, and operated in the West. When he was brought to a realization of the enormous possibilities presented by the undrained lands of the South he was a moving spirit in founding the National Drainage Congress four years ago. He was its first and third president, and while he declined to stand for a re-election at this time, he has been made chairman of a newly-formed central co-operative committee, and as such will do get-together work and otherwise continue his conspicuous activities in behalf of the objects of the Drainage Congress.

Some very pertinent and practical statements were furnished by Nathan C. Grover, chief hydraulic engineer United States Geological Survey, in which the vital importance of thoroughly intelligent and scientific treatment of drainage propositions was pointed out, lest disasters may come similar to those which have overtaken ill-considered irrigation enterprises in the West.

"The nation must seek its traditional domestic supply of foodstuffs by reclaiming its waste areas and by cultivating more extensively all its agricultural land.

"The failure of some of the private or State irrigation projects for which public lands have been segregated is full of pathos and the final record of some of the failures has been filled with tragedy for the thousands who have suffered financial ruin. Most of the failures could have been foreseen and averted by an honest and thorough consideration of fundamental factors, but the desire for gain was too great and caution was thrown to the winds.

"In starting the new form of national activity which is now proposed—the drainage of swamp lands—a serious attempt should be made to put the work on a sound basis and to avoid as far as possible the mistakes made in irrigation. Irrigation and drainage have much in common, and are liable to practically the same dangers; in fact, in many localities not only in the West, but in the East, drainage must be accompanied by irrigation. Every project involves similar financial, engineering, construction and colonization problems. General methods for financing and managing drainage projects having been devised, the data necessary for designing the drainage system may generally be collected in such a field survey as can be made within a period of a few months, except as regards the quantity of water for which the canals must be designed. This last determination, however, involves the collection of records extending over long periods. No such determinations have been made, so far as I am informed, for large swamp areas in the Southeastern States. Designs for drainage construction have had no other basis than general records of precipitation and evaporation, and the result has been that drainage systems have been designed and partly constructed with insufficient capacity to accomplish the desired results. Disappointment may follow for thousands of small purchasers of land who have been assured that the land would be speedily drained. There is danger today that a situation will develop on drainage projects in the Southeastern States which will be as disastrous to drainage enterprises as the failure of irrigation projects has been to irrigation interests. Problems of drainage, like those of irrigation, must be studied in a rational way. The failure of one project will have its baneful effect on all, and the failure of a considerable number will make the financing and colonization of others impossible. The result will be a situation like that which is today preventing the financing

and colonization of irrigation projects, in which the intrinsic soundness and value of individual projects will be completely lost sight of in the general distrust caused by the failure to recognize the fundamental factors controlling all such developments.

"Let us profit, then, by the experience of others, and see that drainage work is started in a safe and sane way. Let us first obtain reliable data in regard to the quantity of water that must be removed from the land. Without such data failures will follow as surely as they followed the hasty construction of projects based on inadequate knowledge of the amount of water available for irrigation.

"Several years should be devoted to the determination of this fundamental factor before there will be assurance that the records cover the ordinary range of conditions caused by fluctuations in precipitation.

"The measurement of run-off need not and should not wait until arrangements have been made for financing and managing drainage works, but, because of the long time required, should be begun at once. In other words, such preliminary data should be collected that the actual work of development may immediately follow the passage of a national drainage act, in the same way that the prior collection of stream-flow data by the Geological Survey made it possible to begin the construction of irrigation projects immediately after the passage of the reclamation act."

Very interesting and very compelling were the views of Sir William Willcocks, K. G. M., who made a special trip from Egypt to accept an invitation to address the Drainage Congress here. Sir William, of mature years, but keen, alert and vigorous, is a great engineer, and the son of a great engineer, and was eminent before he became world-famous and was knighted through building the Assoun dam. Irrigation and drainage are subjects with which he has been familiar since a child. The Nile, the Tigris, the Euphrates and the Jordan—all are open books to him, and "River Regulation and Control in Antiquity," with illustrated slides of present conditions in Babylonian regions, was the thread which carried a wonderful medley of humor, fact, advice, philosophy and romance, sweeping the imagination from the twilight zone of earliest history into speculative wonder as to what of present-day construction would compare in length of life with the 3000 years the levees, dykes and monuments of antiquity had endured.

"Build big and build substantial" was his advice all through. "Pay no attention to cost," said he. "Devise something that will last when you are making your plans for river control, and build to that plan as steadily as your means may permit. Don't start out with a flimsy design. As I gazed on your Washington Monument at Washington, I couldn't help but wonder what would remain of that slender shaft when it is as old as are the pyramids today. The dykes of the Euphrates the Babylonians built remained without a breach for 3000 years. Build the dykes on your Mississippi 100 feet wide, as theirs were—or wider still, if required, and set them back a mile or a mile and a half, if need be, and make them so strong that they, too, will stand without a breach for 3000 years or more."

Reservoirs should be built, he said, as the light of Babylonian experience showed, in such a way that they could be emptied and kept empty at all but high flood.

Sir William declared the control of the Mississippi to be the greatest undertaking in river control the world had ever known, but asserted that the bigger a proposition is the simpler is the task. If he had a bridge of but one or two spans, a simple enough proposition as it might appear, his bridge would be ruined if one of the arches should fall, whereas, with one of 180 arches he could say, "Oh, well, let them go!" If 10 of the arches were to fall, because there would still be 170 arches left, and the bridge would not be destroyed. He had sometimes illustrated this point, he said, by the declaration that he had no doubt Solomon could get along with his 300 wives much better than we of this day can get along with one.

Referring to what had been done by the engineers of ancient times, he urged that improvement today be carried out on such a permanent and adequate scale that those of future years may affirm with truth, in telling of what we have achieved, "There were giants in those days."

A number of interesting reports were made as to what had been accomplished in a drainage way in various States. W. A. Graham, the venerable agricultural commissioner of North Carolina, described the fertility of the reclaimed lands in Eastern North Carolina, and told how one man had raised 100 bushels of corn to the

acre simply by punching the seed in the ground, mostly with his foot, and giving it no cultivation whatever.

Governor Park Trammel of Florida told of the 4,000,000-acre reclamation project in the Everglades, and declared a farmer in his State would consider that he hadn't been farming at all if he couldn't get a \$250 crop per acre, and it might run up as high as \$1200. The average cost of drainage in the Everglades is \$4 to \$8 an acre. When Florida swamp land is reclaimed and ready to sell it brings \$50 to \$100 right away, and will be worth \$150 to \$250 an acre in time. There is now general enthusiasm among the Florida people over the Everglades reclamation, although in the beginning, owing to the misinformation that was disseminated, a good deal of hostility had been worked up. Sales of Everglades swamp land were mostly made to people who lived along the edges of the swamp, and who know, therefore, what can be done with the lands. Governor Trammel expressed approval of the Clark-Williams bill, declaring that if the Government will help in the work of financing the bond issues, that will be all the aid required. "We can handle the problem if we are financed, and this will then become the greatest country on earth."

Dr. Joseph Hyde Pratt, State geologist and engineer of North Carolina, told of the reclamation work done in North Carolina. It was slow to begin, and dates back only some five years, but there are now drainage projects in 10 eastern counties, with acreages of 1500 to 20,000 in each, and the movement toward the drainage of the entire 3,000,000 acres of swamp lands within the State is now under way.

Otto Kochlitzky, representing the reclamation commission of Missouri, told of the St. Francis River basin work and described the model drainage law Missouri had devised.

Dr. S. W. McCallie, State geologist of Georgia, stated that very little drainage work had so far been done in Georgia, although it had more swamp lands than any Atlantic coast State outside of Florida. He approved of Government co-operation, especially in the construction of dykes along navigable streams.

Prof. E. O. Fippin of the department of soil technology, Cornell University, spoke at length on "Land Drainage in Its Relation to General Agricultural Development," and in the course of his speech expressed fear that if the swamp lands were drained too rapidly disastrous results might follow.

Mr. J. C. Claire, industrial commissioner of the Illinois Central Railroad, declared that no alarm need be felt over the possibility of reclaiming too much land when we are importing corn and beef from Argentina, eggs from China, wool from Sweden and various other products are not raised in sufficient abundance here. Mr. Claire referred to the work of the railroads, all of whom recognize the importance of draining the lands and settling them; of controlling the rivers and making conditions secure; of teaching farmers how to better their conditions and making life brighter and more complete for the boys and girls of the farm.

The Illinois Central had a number of illuminated scenes showing flood ravages in the Mississippi. There was a display on the walls of the convention hall, and a still more striking presentation was made through lantern slide lectures at evening sessions of the congress.

Ex-Governor W. S. Jennings of Florida declared in his speech that an obligation rested on the Government to provide funds for reclamation work.

Col. C. G. Elliott, former chief of drainage investigations, United States Department of Agriculture, read a paper on "Some Important Features of the Present Drainage Situation," comparing the former attitude toward drainage and the drainage engineer, with their importance in the welfare of the community today.

W. A. Hamilton, an Indiana man who has located in Vicksburg, Miss., and made extensive investments, praised the broadminded patriotism which he saw in the efforts of the Drainage Congress. He cited instances and gave experiences to demonstrate the necessity for national river control.

"Drainage Reclamation in Georgia" was discussed by J. V. Phillips, United States drainage engineer in charge, and "Drainage Activities in South Carolina" by F. G. Eason, United States engineer of Charleston.

"Conservation and the Use of Water" was the title of an address by Geo. B. Logan, secretary of the Lakes-to-the-Gulf Deep Waterway, in which he suggested dams and water-power development as one way to handle the Mississippi River.

As nearly 98 per cent. of all agricultural products pass over the roads or streets before reaching the wharf

or depot, D. H. Winslow, United States superintendent of road construction, Washington, pointed out the improvement of roads was declared by him in his speech on "Road Maintenance" to be of first importance, and to get and maintain good roads, good drainage is a fundamental requirement.

"Drainage in Its Influence on the Commercial Development of the South" was the title of an address by Dr. Clarence J. Owens, Washington, D. C.

Dr. J. H. Squires of Wilmington, Del., agronomist of the Dupont Powder Co., gave an illustrated lecture demonstrating how stump removal, tree felling and soil preparation are accomplished with dynamite.

A special department of the congress was that of diseases incident to undrained lands. Dr. Thomas D. Coleman of Augusta, an authority on pernicious malaria, read the first paper on the subject, and stated facts and conclusions, based on his practice and observations, that will give his paper great interest and importance to the medical profession.

To the layman interest lies in his statement that there would be no malaria if there were no mosquitoes, the disease being communicated in no other way than through the bite of the malarial variety of a mosquito that has just bitten another person who has been similarly infected. "Bad air," bad water, nor any other cause but the mosquito, and but one kind of that, can give one malaria.

A paper by Dr. R. H. Von Ezdorf, of the Public Health Service, on "Malaria: Investigations in the United States by the United States Public Health Service," was read by Dr. H. R. Carter, also of the Health Service, who in addition presented an address of his own on the importance of drainage in the eradication of malaria. Dr. Van Ezdorf had come to Savannah, but received orders from Washington to proceed at once to Vera Cruz.

"Farm Abandonment and Malarial Infection—A Vicious Circle," was the subject of an address by Dr. Allen W. Freeman of Richmond, Va.

So impressed was the congress with the great importance of combating malarial diseases that resolutions were passed calling on sanitary authorities and others interested in promoting public health to aid in the development of public sentiment and the enactment of legislation necessary to drain wet lands. Also, that whenever a drainage project is undertaken the plans for engineering should provide for the control of malaria as well as for rendering the land suitable for agricultural purposes. A permanent committee of five members, at least one of whom shall be a physician, is to be appointed by the president of the Drainage Congress to study the drainage laws of the several States in the endeavor to prepare a uniform drainage law to be suggested to the several States for enactment.

The Clark-Williams bill was strongly endorsed as the most feasible measure yet presented for nationally handling flood control and drainage, and its speedy passage was urged upon the Congress of the United States.

Officers for the ensuing year were elected as follows: Col. E. J. Watson of South Carolina, president; F. B. Knight of Illinois, first vice-president; D. E. King of Missouri, second vice-president; Gen. William C. Gorras, U. S. A., Surgeon-General of the United States Army, Washington, D. C., third vice-president; Edward Wisner of Louisiana, fourth vice-president; J. L. Craig of California, fifth vice-president; A. M. McLachlen of the District of Columbia, treasurer; Sir William Willcocks of Cairo, Egypt, honorary vice-president at large, and Edmund T. Perkins of Chicago, "the honorable past president," said title to remain as a permanent title for him alone.

The next annual meeting will be held in Washington, D. C. The committee also recommended an International Drainage and Flood Control Congress to be held at San Francisco during the exposition next year, to which there shall be invited from all parts of the world individuals, States, municipalities, corporations and other organizations.

Savannah was a most gracious host, and a rarely beautiful floral parade, a street fair and carnival, excursions to Tybee Island, automobile rides around the historic and superlatively charming city of Savannah, with special entertainment for the ladies who came along, were features of the demonstration that was made. It was a matter of great gratification that Mayor Davant, who had thrown his whole energies into the arrangements for the meeting, was able to appear on the platform before the sessions closed and be given an ovation by the city's guests.

ALBERT PHENIS.

## Notes by the Way in Dixie

Wherever one travels through the South with his eyes open, evidences of development are seen. No one pretends that business is at its best. In many lines of industry there is depression, but the broad foundation for the upbuilding work for this section goes steadily on.

Road building is seen everywhere. Municipal improvements are under way in villages and towns as well as in cities. House building is one of the most interesting features of Southern activity. While home-building activities are possibly not as great in some sections as they have been in times past, there is a general activity along the highways and byways of the South which shows that the country people and those in the towns and villages of the South are spending money in getting better and more attractive homes.

In many sections the number of houses that are being built by settlers from the North and West is especially interesting. In Florida, one would think that all of the Northern and Western people that are coming South are locating in that State, so many are the evidences of the building of homes by them, from very costly ones to those of moderate cost. As one travels through the Carolinas and Georgia and other States and hears everywhere of this man and that man from the North or West who has located at this point or that and is taking part in its development, he begins to think that most of these outside people must surely be settling in those sections. When he gets into the Carolina mountains he finds that men of wealth from all parts of the country, and especially from the West and Northwest, are locating throughout that section, and many of them building attractive residences, not simply for winter use, but as permanent homes, and so he is forced to see how widespread is this movement.

The incoming of these people into all parts of the South marks one of the most important eras in Southern upbuilding. Every settler becomes an enthusiastic advocate of the country in which he is making his home, and thousands of people are now daily writing to their friends and relatives in other regions about the charms of the South and its potentialities, where but a few years ago there were few outsiders hearing in this way of the South's advantages. This cumulative power of the work of the last quarter of a century in turning the thought of people of the country into the South will soon be shown in a tremendous change of business conditions, bringing about the broadest development that the South has yet had, for it means the addition to Southern energy and Southern money of energy and money and people from other sections.

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Jacksonville has been one of the wonders of growth in Southern city life. It was but a few years ago when comparatively few people expected to see Jacksonville a great city. But today close students of such things realize that Jacksonville is to become one of the big cities of the South. Indeed, it is altogether probable that in the next 15 or 20 years there will be several cities in Florida of from 100,000 to 250,000 population each, with possibility that one or two may very considerably exceed even the latter figure.

There are some things which Jacksonville is doing which ought to be done by a good many other Southern cities. One of these important things is a great warehouse built by the Union Terminal Co., controlled by President Gay.

This warehouse has 500,000 feet of floor space. For 300 feet it is six stories high, and for 380 feet it is five stories, making a total length of 680 feet. It is constructed with a view to absolute fire protection. The building itself, by reason of this construction, secures insurance on the basis of one-twelfth only, while the rate of insurance on the average contents is only one-quarter.

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Much of the wholesale business of the South, especially of groceries and kindred operations, has been done, as in other sections of the country, in old rat-infested warehouses. These old warehouses, built years ago without regard to fire protection or to any rat-proof qualities, met the needs of former times, but of recent years the establishment of such warehouses as that of the Union Terminal Co. at Jacksonville and the Cummins Station Warehouse at Nashville, with others of a similar character, are effecting a great revolution in the handling of business.

Texas City has an enormous warehouse system of this kind, with a series of warehouses that aggregate about 5000 feet in length, and what has been done there and what is being done at Jacksonville and Nashville demonstrate what could be done in many places in the South to the very great profit of Southern cities.

The Union Terminal Warehouse at Jacksonville was constructed through the energy of President Gay. Details as to its construction, as to its excellent railroad facilities have been given to the MANUFACTURERS RECORD in the past. It is not so much with these details that I would deal as merely to emphasize its pre-eminent value to Jacksonville and the influence which it will have in enabling local people who rent space in it to enlarge their business operations and lessen the cost of doing business and the influence which it is already having in drawing big concerns to Jacksonville as a distributing point. To my mind it is already certain that a very large expansion of this undertaking will be required to meet the growing demands for fire-proof space in this great warehouse.

Some time ago a suggestion was made by local people that Spartanburg, S. C., should have a storage and distributing warehouse of this kind in order that Western and Northern houses might carry a large stock of goods from a central point in the South from which they could be distributed to advantage. The people of Spartanburg interested in this plan and the people in every other growing distributing center in the South ought to make a study of what the Union Terminal Warehouse is doing for the enlargement of Jacksonville business and for the betterment of conditions under which grocers, hardware houses and others can handle their trade.

If men of the same energy and business ability, the same farsightedness, and the power to command money as President Gay of the Jacksonville Terminal, can be found in other cities, there are many points in the South in which warehouses could be built to advantage.

It is understood that these warehouses, wherever built, have proved profitable, and that the bonds have always been taken care of by the earnings, while the business of the community has been greatly bettered.

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For a good many years there was some question in the mind of many people of Augusta, Ga., as to whether their city had reached the limit of its growth, or whether it would some day break loose and become a much larger business center. Augusta is breaking loose, and its growth is now certain. It is the center of very large hydro-electric developments, but there are vast powers in the region tributary to Augusta yet awaiting development. One of the very foremost engineers of the United States, than whom there is probably no higher authority on hydro-electric operations, has stated privately to Augusta friends that the Savannah River from Augusta to the mountains is next in importance in this country to Niagara for the development of electric power and its utilization in a country capable of very great development operations. There are yet many places along this river awaiting development. The country tributary to it is rich in resources. It has a splendid climate, and ought to become the site of vast industrial activity.

It is quite certain that some of the power created by utilization of this river will be used for the operation of railways. Some of the steam roads in this territory must be rebuilt or go to destruction. The success of interurban lines operated by hydro-electric power has demonstrated the possibilities of such roads. While some of the existing steam roads will probably have to be operated in the future by electricity in order to be saved from ruin, new interurban lines will certainly be built with Augusta as one of the termini.

The remarkable success of the Duke's interurban system in the Carolinas is waking people up to the possibilities of water-powers utilized for the operation of railroads. The Duke roads in many places parallel for miles steam roads. They have been built in a most substantial manner, and are equipped for heavy freight traffic. Their earnings, as reported, are exceptionally heavy, and at the same time they are proving a great factor in the development of the country. This system will, in all probability, be largely extended, reaching out to other points in the Piedmont South, and the success of this system will unquestionably cause other capitalists and other railroad people to enter upon

the active construction of electric interurban railways. This is one of the certainties of the near future.

R. H. E.

### ARCHITECTURAL TERRA-COTTA.

#### Details to Be Considered in Its Manufacture and Handling.

In the manufacture of mechanical terra-cotta the first thing the manufacturer does is to make complete terra-cotta construction plans in accordance with the architect's drawings. It is impossible that the architect should do this himself beyond a certain extent, for it requires years of practical experience in the manufacture of terra-cotta, knowledge of the manufacturing methods of the factory in which the material is to be made, and intimate knowledge of the characteristics of that factory's product. For instance, all factories do not use the same shrinkage scale, and in some factories more than one shrinkage scale is used because different colors may require different temperatures, involving a different shrinkage. There are countless other points which must be considered—the shape of the piece, the relation between its dimensions and the end upon which it is to be set in the kiln so that it will be certain to burn straight and shrink evenly, must be thought out carefully.

Terra-cotta cannot be set on its face, for the slip or glaze fluxes in burning and adheres firmly to anything with which it comes in contact. The glazed material requires particular care in this respect.

The method of anchoring to the form of frame construction the architect selects must be worked out in detail, and here again intimate knowledge of terra-cotta is necessary. The drawings show the size of every anchor, its attachment to the piece with the necessary apertures, and the attachment to the frame. Complete iron schedules are compiled for the iron contractor's bid. The dimensions of the bond are given and its connection with the masonry or iron work. All joints are clearly shown, and they differ from stone joints in that allowance must be made for the possibility of uneven shrinkage. The better class of manufacturers always make entrance and lower story work, where the joints will be prominent, larger than the necessary size to permit grinding the joints by machinery to mechanical exactness.

The scale drawings are sent to the architect for approval, and on return full-size drawings are made to shrinkage scale (about one inch in one foot) for the use of the modelers and molders.

When the terra-cotta calls for ornament or figure design the model is made in clay by hand. The mechanical models are made in plaster. The architect approves or revises the work from photographs unless he prefers to inspect it personally. Even in a completed state the models are subject to his revision. When approval has been received, plaster molds are made directly from the models, one for every piece of different design. It will be readily seen that great economy in modeling and mold-making results when a design is so arranged that

the ornament frequently repeats; it is this factor that accounts chiefly for the general economy of architectural terra-cotta.

In the molds the terra-cotta is pressed by hand. The pressing does not require especially skilled labor, but every piece must also be finished by hand with modeling tools. In the case of intricate ornament it frequently takes as long to finish the piece as it does to press it, and the finisher must possess some knowledge of the essentials of modeling.

Before the terra-cotta pieces can be colored and burned they must be thoroughly dried. This is necessarily a slow process at first. Fully one-half of the entire shrinkage takes place during drying, and unless this goes on gradually, warping is inevitable. There is also danger of cracking if the heat is applied too soon. The time required to dry a piece of average size is one week. In case of an unusually large piece, with dimensions out of proper ratio, the time must be doubled.

When the building is of one color, the application of color is a comparatively simple matter. The slip in liquid form is sprayed on with an atomizer operated by compressed air. In the simplest colors from two to three coats of one slip are sufficient. The number of slips required varies from one to four, and even five in the more complex glazes.

In coloring polychrome materials the method of application is the same, in general, except that it is a much more delicate operation and requires considerable skill on the part of the operator.

In the preparation of the various colors the highest kind of technical ceramic chemistry is required. There are no glazes on the market that are suitable for terra-cotta, and every factory must maintain its own ceramic laboratory. Experiments must be adapted to local conditions, which not only are not alike in any two factories, but liable to change "without notice."

The kilns in which terra-cotta is burned are made with a double wall, through which the heat circulates. The flames do not come into contact with the material; such contact would be absolutely ruinous. Even a small leak admitting gas into the inner chamber is disastrous. The fuel in general use is soft coal. The size of an average kiln is 18 feet diameter and 15 feet high, inside dimensions, with a double wall from three to five feet through. Such a kiln will hold from 35 to 45 tons burned weight. As the material is loaded, bearing floors are built of blocks and slabs of a fire-clay mixture, for terra-cotta when it approaches maturity is too near the fluxing point to bear any great superimposed weight. The fire-clay body having been burned previously at a greater heat than that to which the terra-cotta is subjected, is unaffected. Terra-cotta reaches a temperature of about 2300 degrees Fahrenheit, and at that heat is white-hot and translucent. It is this process that makes it so absolutely fireproof.

It takes from 12 to 14 days to "turn over" a kiln; one day to load; five or six days of slow heating up to the required point; five or six days' cooling, and one day to unload.

Before shipment all work is laid out in sections and carefully fitted. The better class of manufacturers, by making the pieces too large originally, are able to discount any small inequalities of shrinkage by grinding

the joints on a steel rubbing bed, with a mechanically accurate result. This, of course, involves an extra expense, generally confined to the manufacturer. It is slight compared to the improvement in appearance.

Generally extra pieces are made to take the place of any broken in kiln. If necessary, replacements are rushed through and burned in a small kiln to save time.

While terra-cotta is a very strong material, and when properly set in a building easily stands any compression it is called upon to bear, it is brittle, and a sharp blow will chip it. Consequently, the greatest care is necessary when loading cars or barges. At the factory terra-cotta is packed in straw and firmly braced to prevent dislodgment, and it should receive equal consideration when it arrives at the building.

### First Aid Among Miners.

Chamber of Commerce,

Bluefield, W. Va., April 25.

#### Editor Manufacturers Record:

Under the auspices of the Pocahontas Operators' Association, there will be held in Bluefield on May 13, concurrently with the annual meeting of the West Virginia Medical Society, a "first aid" contest, participated in by teams from the many operations in the field. Much interest is being manifested in this meet or contest by the miners as well as the operators. Handsome prizes have been offered to the competing teams and in many cases to the individual competitors, and the contest will be judged by Mr. J. W. Paul and Mr. H. M. Wilson of the United States bureau of mines, assisted by three physicians named by the Medical Society. An elaborate program has been arranged for the meet, and committees from the Operators' Association and from the Bluefield Chamber of Commerce, actively assisted by representatives from the bureau of mines, are arranging details and perfecting plans for the biggest day in the history of the Pocahontas coal fields. Special trains will be run into Bluefield for the meet, and inasmuch as all of the operations will shut down for that day, it is expected that the city will be taxed to its capacity by the miners and their families.

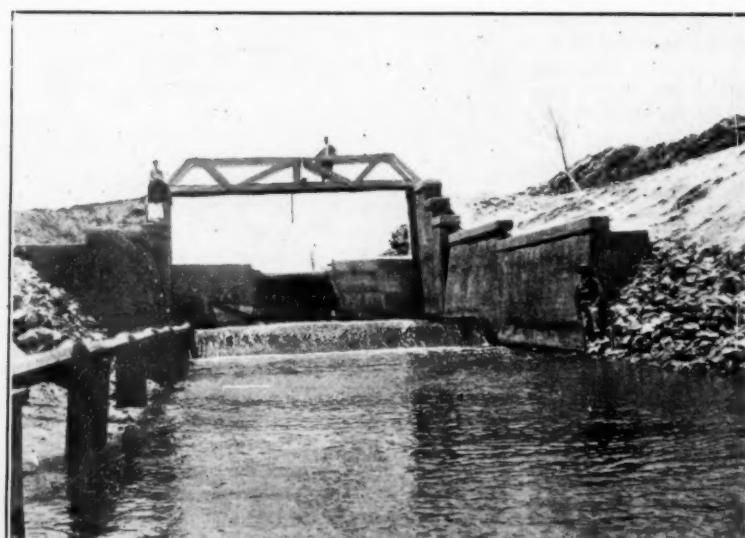
There can be no gainsaying the fact that a contest such as this accomplishes much good, not only in making the "first aid" teams at the mines more efficient and more zealous, but in demonstrating to the other miners the necessity for care on their part, and also demonstrating to them the solicitude of the operators for their safety and the means provided for caring for them in the event of injury.

C. T. BOYKIN, Secretary.

### Correction.

On page 49 of our issue of April 23, in correspondence from Palatka, Fla., the statement was made that the Government had appropriated more than \$1,000,000 for the construction of a direct water route through the middle of the State. We are informed that that was an error, and that of the \$730,000 necessary for the project, \$175,000 is provided for immediate use in a bill which has passed the National House of Representatives and is now before the Senate.

### PHASES OF FARM DEVELOPMENT IN FLORIDA.



\$16,000 SPILLWAY OF REINFORCED CONCRETE IN DRAINAGE CANAL.



MAIN DRAINAGE CANAL, INDIAN RIVER FARMS COMPANY, VERO, FLA.

## Two Outlooks Upon the Textile Trade

### I. By PRESIDENT EDWIN FARNHAM GREENE of the National Association of Cotton Manufacturers.\*

We cotton manufacturers are met here today for our ninety-sixth meeting. As we survey the events of the past few months we are not over hopeful. A tariff bill was enacted last fall, the last provision of which, so far as textiles are concerned, went into effect January 1, with the reduction of the duty on wool goods. This readjustment was a most serious one with the woolen and worsted mills of the country. As is well known, the losses through curtailment and shrinkage of inventory last year were very large for most of the companies. The result is that even today some of the larger woolen mills are still idle and others are radically curtailing, and it is safe to say that most of the mills are operating on the smallest margin of profit, if, indeed, there is any profit in the present business. What I fear most is that the full effect of the tariff has not been felt. The cotton manufacturers perhaps have not been seriously disturbed in most lines by direct competition from the foreign manufacturers. However, on fine goods, particularly of a fancy nature, competition has been in evidence, and yet the cotton manufacturers, as a whole, are not as alarmed as those in the other large branches of the textile industry. This is an ad valorem tariff, and with prices fairly high as they are today, the margin of protection is greater than it will be later when the industry suffers a possible severe setback and foreign prices fall to a lower level.

One step forward has been taken during the past few months in the organization of the Textile Bureau. The primary object of this is to protect the interests of the domestic manufacturer in all customs matters, and particularly to assist in preventing undervaluations and the fraudulent practices of some importers. In this we are not working contrary to the National Government or any of its departments or officials, but are only cooperating in the enforcement of the laws of the land to enable the honest importers to do a legitimate business and to see that the side of the domestic textile manufacturers is fully presented in important cases before the various boards and officials of the Treasury Department and the courts of the land. Heretofore manufacturers of the country have not felt this necessary, but with a very radical change in the method of levying duties and the change in the administration it has seemed important that the case of the domestic manufacturer should be presented as fairly and ably as that of the importer who necessarily is working in the interest of the foreign manufacturer. The work of the Textile Bureau has just started, and yet we hope much can be accomplished even this first year for the industry.

The changes in the tariff, as I have just stated, are likely to affect the textile industry, but apart from this the prosperity of the cotton mills is dependent to a very large degree on the general business of the country, and this seems likely to continue in a very unsatisfactory way unless some of the momentous questions that are now being discussed by Congress and the Interstate Commerce Commission are decided wisely. Congress at this very time is considering corporation bills which directly affect us, and unless sane legislation is enacted serious injury is bound to result to the general business of the country. It seems to be the consensus of opinion that the increase in freight rates demanded by the railroads is a necessary first step in the restoration of public confidence.

Moreover, there are several labor bills being considered by Congress. While we in New England cannot help feeling that the textile industry should in the long run be put on the same basis as regards labor legislation, nevertheless the Democratic party seems to be departing strangely from its ideals of State rights and individual liberty in the paternalistic program of the present day with its policy of uniform laws.

One of the most serious problems which we manufacturers have to face is the labor problem. It is not merely a question of wages or hours of work. A mere shortening of hours will not accomplish what the wage-earners themselves really seek. It is a much larger question. As I have frequently stated, we all believe in higher wages for the textile workers. The present schedule of wages should be maintained, but if the Government seeks to impose unjust and unfair burdens, labor must bear its fair share of the load. We should consider very seriously any suggestion for a further decrease in hours of labor. We have been talking of the

high cost of living for a great many years, and one of the immediate causes of this is the shortening of hours and the consequent increase in the cost of production. There is a reasonable limit. We are all happier and after all better off with hard work, and so long as the health of the textile worker is not impaired and so long as sufficient time is allowed for recreation and improvement, the people of this country are better off at work than with too much idle time on their hands. I, for one, believe that 54 hours of work in the week cannot possibly do anyone an injury—even most boys and girls of 14 and 15 years of age, and certainly this weekly schedule of hours allows a good deal of time for other worthy pursuits. We are now forced to compete with foreign operatives working a longer number of hours than we do here in Massachusetts, and at very much lower wages. Any further curtailment in hours must inevitably stand in the way of an increase in weekly wages, and the textile workers themselves and New England as a whole would be better off to work at least 54 hours a week and, when conditions warrant, secure an increase in wages, rather than work for the same weekly wages and shorter hours.

### II. By PRESIDENT STUART W. CRAMER of the American Cotton Manufacturers' Association.\*

The history of our organization is following closely that of other like trade guilds and associations, the world over and from time immemorial, beginning with gatherings largely social in their nature by which men in a competitive business became acquainted with each other and gradually awakened to a sense of community of interest; then following, an increasing freedom and willingness in the exchange of ideas and information, particularly on trade and technical subjects, resulting ultimately in a complete appreciation and realization of the strength of organization and co-operative effort. Those engaged in every successful industry in every country, and, indeed, in every civilization, sooner or later have felt and yielded to the need of united effort.

The whole world, today more than ever, is studying this inevitable evolution of commerce and industry. Nations approach the problem from different viewpoints; some encourage co-operation even to the extent of adding to its paternalism; all recognize and accept it in one form or another, for it is the will of the people. Germany has developed an elaborate educational system for teaching the true relation and value of individual co-operation in economics; has fostered it and aided by State co-operation until she is the most feared rival in foreign commerce. Japan is equally awake, and only less advanced because of lack of means.

Broadly speaking, both consolidation and co-operation develop and appear under pressure of unreasonable competition or overproduction; hence some industries have progressed farther along those lines than others. It is only comparatively recently that the cotton manufacturing industry in the United States has been brought face to face with conditions demanding such radical readjustments in its business methods. Having been possessed of the greatest home market the world has ever seen, with a supply only approximating the demand, with competition largely domestic only, the individual units acting independently have greatly developed and prospered.

Without consuming your time by sketching more than the barest outline of this thought, I wish to emphasize to you that while this industry is still free from consolidations approaching monopolies and even of healthful co-operative organization beyond the advisory stage, that both economic and political developments have brought us to a point where steps must be taken toward more actual and real co-operation. With the mistakes of others clearly before us and with careful and prudent counsel, we can so proceed as not only to maintain but to exceed the splendid record of our past, and all within both the letter and spirit of the law. By following sound principles and effecting legitimate economies each can conserve his own business and add to the prosperity of all others concerned—the producer of the raw material, the manufacturer, the merchant and the consumer. Economies must be effected in buying and handling raw materials, in processes of manufacture and in the distribution of the product; lost motion and waste at every step must be reduced to a minimum.

\*Annual address before the association at its Boston meeting.

It is, perhaps, a sign of the times that one of the largest carpet mills in this country recently reduced the wages of all their operatives, including foremen, 10 per cent. I sincerely hope that this will not prove necessary throughout the industry, but it behoves us to consider carefully whether we are in a position to compete with the English, French and German mills if any further burdens of restrictive legislation, such as shorter hours, are imposed.

While the cotton industry is thoroughly individualistic and highly competitive, in order to meet the present conditions there must be a greater degree of co-operation. The results so far are discouraging to those who have tried to accomplish anything along this line, but there are some encouraging signs, such as the establishment of the Textile Bureau.

In conclusion, as I retire from the presidency of this association, may I express a personal word of gratitude to those with whom I have been associated these past two years. This association has a great heritage and a still greater opportunity for the future. The need is there. Little has been done to accomplish this, due perhaps largely to the fact that we all have been facing serious problems in our own business, but I hope the members will realize the critical need of common effort and to this end support the new officers in a work which must be done.

Periods such as we have been passing through are hard and wearing, but the process is a natural one. It is a well-known principle of biology that "a live thing is distinguished from a dead thing by the multiplicity of the changes at any moment taking place in it." It is certainly reassuring that we must be very much alive, indeed, at this time if the changes in the conditions of our business during the past few years indicate anything; we seem to have had everything except increases in the prices for our product.

In taking stock of the situation and considering where to begin, it so happens that the natural beginning of addressing ourselves to the problem of raw materials is the one the successful solution of which will result not only in much direct gain, but probably also will constitute our greatest step toward economic independence.

Many manufacturers have given much thought and study to this question, and have foreseen and followed to a considerable extent the general form and direction of a successful answer, but the shadow of economic dependence has always obscured the path of definite and complete accomplishment.

And so, I have taken the liberty of departing from our custom of presenting for your attention a variety of papers largely technical, and beg to direct your thoughts during this convention exclusively to the more fundamental problems affecting the cotton manufacturing industry, and particularly do I ask your consideration of the subject of reforms in the buying, handling and carrying of cotton.

A discussion of that question naturally deals, first, with the rules and conditions under which cotton is bought and sold; and, second, with financing both the commodity and the mercantile transaction. As will be shown by speakers who will address you and by the report of your committee on cotton exchanges, movements are already well under way indicating a great improvement in, if not altogether a completely satisfactory adjustment of conditions governing the first phase of the question, viz., the rules for buying and selling cotton.

There will also be submitted a plan that seems perfectly feasible for successfully disposing of the other and equally difficult matter of financing cotton transactions. This is more or less familiar to most of you as the Duke warehouse plan; it will be explained in the report of the special organization committee and discussed by speakers at our banquet.

In view of the fact that the manufacture of cotton is an industry more than one hundred years old, that it is a very large one spread over the entire civilized world, that the evolution of its technical processes has been the achievement of very many trained minds both practically and scientifically educated, it appears extremely unlikely that radical changes or improvements in processes of manufacture are to be expected. The greatest opportunities along this line seem to lie in acquiring greater skill in the use of inferior cottons to produce a given result, in diminishing the amount of

\*Annual address before the association at its Boston meeting.

\*Annual address before the association at its New York meeting.

waste made and in the utilization and working up of waste.

The standardization of sales notes, the adoption of standards of moisture or regain, the correction of some well-known trade abuses in the sale of dyestuffs and certain supplies, an organized and well administered bureau for guarding against customs-undervaluations of imports, are all matters of extreme importance and are making satisfactory progress in the hands of standing committees.

Although the new tariff act has been passed and has been in actual operation for some time, the work of your tariff and legislative committee is by no means ended, for it is naturally to be expected that there are uneven places in the measure that will require smoothing out, the pointing out of which will undoubtedly be left to manufacturers. It is by no means believed that the amount of importations forms a conclusive method of judging the effect of the new tariff bill upon the cotton industry. Up to the present time the effect has been largely one of the pressure of threatened importations, domestic manufacturers meeting prices and holding the business at figures that are profitless in many instances. As was frequently prophesied during the tariff hearings and at the time the bill was under consideration, in few, if any, of the cases where the already small profits to the manufacturers have been squeezed out has the ultimate consumer been the gainer; such reductions have been absorbed in the cost of distribution. As a whole, the manufacturers of the country have loyally supported the administration in the trial of its new tariff measure in the hope that an analysis of its workings will lead to corrective legislation where required, to the benefit of the producer and still without detriment to the consumer.

Further study of foreign markets and more co-operative and organized effort in that direction seems to be the solution of the export problem. The greatest success yet achieved in American exportations appears to have been in the case of patented specialties, the products of highly organized and comparatively new industries, and particularly of industries with large corporations having powerful financial resources, enabling them to maintain foreign offices and warehouses and to extend the necessary lines of credit. It is hoped that the new currency and banking act will not only provide elasticity enough to prevent money panics, but that its feature of foreign branch banks will work out to be of substantial help in developing our export business.

In order that you may see at a glance the condition of the export trade in which we are most interested, I herewith append an extract from the semi-annual report of Mr. Howard Ayers, secretary of the Cotton Goods Export Association, giving figures on the foreign trade in cotton goods of the United States, Great Britain and Japan. It is interesting to note the increase in the Japanese business; and here it is also in order to call attention to the large increase of the spindlage in China. The editor of the *Textile Mercury* (England) estimates that by 1916 Shanghai and vicinity may have 1,000,000 spindles. The significance of the rapid development of the industry in China and Japan is the effect it will have upon our export business, and bearing upon that same question is the increased consumption of Chinese cotton by both Chinese and Japanese mills and the corresponding decrease in the consumption of American cotton. It was indeed startling news that appeared in recent press dispatches to the effect that China had so largely increased her cotton production as to now occupy third place in the production of cotton in the world; it was pointed out that lands formerly used for raising opium were now devoted to cotton. It is undoubtedly true that China has been producing more cotton than she was given credit for; so, with the present more accurate knowledge of her production, the new figures are not at all unexpected; it is equally true, however, that China is producing substantially more cotton each year, and the chances are that it will be further increased, a situation that will furnish a very difficult problem to both American cotton producers and manufacturers.

During the past year many English mills and merchants have quietly been making trade connections in America with a view to that outlet for surplus goods when needed. There are abundant indications that this condition is arriving, for advices from Lancashire indicate that new business is slow and that the present shipments of cotton goods are largely on orders taken some time ago. With a downward price tendency and a weak demand over there, we can expect a corresponding increase in importations at an early date.

The many kinds of legislation recently passed and pending, both constructive and destructive, undoubtedly contribute largely to the present unsatisfactory condition of business. It is difficult to see how much actual improvement can be expected until the uncertainty continually engendered in this manner is removed.

Prosperity seldom smiles on one industry at the expense of another. The general welfare of the whole country is so closely knit that a blow at any one constituent part is felt all down the line. Whether an individual railroad is wrecked by its management or whether the whole railroad system of the country is shaken by Federal or State persecution is only a matter of degree; all industry feels the shock. Whether one community is terrorized by the I. W. W. or whether a whole industry is paralyzed by unreasonable and restrictive legislation is again only a matter of degree; the general business of the country feels the demoralizing effect.

The truth is that the welfare and happiness of practically all the people in this country are dependent upon the general condition of business. The stock in our railroads, banks, factories, mines and utilities are largely in the hands of relatively small investors; their other securities are largely held as investments by insurance companies, trust companies, savings banks and other repositories for provision of the masses against want and privation in their time of need. The "people" in such cases are not merely the work people engaged therein, nor the consumers only, but the whole people comprising farmers, merchants, manufacturers, clerks, salesmen and saleswomen, mechanics, laborers, servants, widows, orphans, and all who are dependent, in every walk of life.

In their mad race for progressiveness some of our political friends seem to have become imbued with the intolerant and snobbish spirit of the English official and aristocratic class portrayed by Tennyson in his lines—

"We are not cotton-spinners all,  
But some love England and her honour  
Yet."

The duty of guarding the rights of the people entails the far heavier responsibility of conserving the welfare of the people. For example, denying the right of self-support to a dependent child should entail some other provision for its needs; refusing work to able-bodied children should carry with it compulsory education to prevent their idleness from breeding degeneracy; restricting women's work should not be without other opportunity of a livelihood for themselves and children dependent upon them; a minimum wage, particularly in industries employing unskilled women where there is great competition for places, puts a premium on immorality for the slower and duller ones.

In spite of the agitation and misrepresentation of the few whose occupation is chiefly in so doing, the cotton manufacturers are doing a great work in improving the condition of work people, providing them with better homes and often with workrooms whose sanitary conditions challenge equality in even the public buildings and schools of the most progressive parts of our country. As a rule, these men are quietly solving their problems without noise and personal advertisement; they meet practical legislative betterment in a spirit of co-operation, but always without losing sight of the responsibilities that go with it—as when the manufacturers in the State of North Carolina insisted upon compulsory education accompanying the recent raising of the age limit for child labor.

Conditions in the United States vary greatly in different parts of its immense domain, and oftentimes blanket legislation that will be a help in one section may prove a hindrance in another. The development of children, both mentally and physically, varies greatly from the extreme North to the extreme South. State legislation affecting age limits and hours of labor is, therefore, both to be preferred and is more rational than Federal regulation.

In conclusion, I beg to repeat that it is my firm conviction that cotton manufacturers must relieve themselves of the burden of financing their yearly supply of cotton, or it will be a long time before the industry achieves that degree of economic independence necessary for unhampered movement toward the solution of its other problems.

#### To Manufacture Bricks and Tile.

About 90,000 ordinary building bricks and 10,000 repressed bricks will be the daily capacity of the plant soon to be completed by the Johnson & Johnson Company of Raleigh, N. C. Construction has been progressing for some time at the site, Cherokee, near Norfolk Southern Railway, Cape Fear River and Raleigh. The plant will include electrically-driven equipment, four kilns with steel roof trusses and galvanized-iron roofs, each holding 450,000 bricks, dryhouse holding material for 500,000 bricks, 200 acres of clay land, etc., all costing about \$100,000.

#### Wood Fiber Asphalt Co.

Wood Fiber Asphalt Co. has been incorporated by A. G. Wamock, W. G. MacCorkle, S. B. Clinton, G. O. Clinton and S. Hess, all of Charleston, W. Va., the capital stock being \$250,000. This company will organize to develop a patent paving of wood fiber and asphalt.



MENNONITE FARMERS SELLING THEIR PRODUCE IN NORFOLK, VA.

April 30, 1914.]

## MANUFACTURERS RECORD.

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## Financing the Cotton Crop

[Special Correspondence Manufacturers Record.]

New York, N. Y., April 29.

The one dominant question that overshadowed all others under discussion at the eighteenth annual convention of the American Cotton Manufacturers' Association, which held its sessions at the Waldorf-Astoria Hotel in this city yesterday and the day before, was the Duke bonded cotton warehouse plan. Other matters were talked about, interesting and instructive papers were read on other subjects, but whether on the floor of the convention or in private conversation in the various groups into which the membership divided itself from time to time, no speech or conversation could go far without reverting in some way to the one big question—Duke warehouse. And yet, strange as it may seem, there was no strong, exhaustive speech made discussing the question in a manner that would serve to satisfactorily elucidate it to the mind of a man not already thoroughly conversant with it. To Mr. Frank A. Vanderlip was assigned the task of thus illuminating the subject, but, while he made a most interesting speech, touching upon numerous economic questions, he did not stress the one matter upon which it was expected he would dwell at length, and it was more from the discussion that followed his speech, and from fragmentary remarks made in speeches at various other times, that the layman was able to gather the most information on the subject.

At the dinner of the association Monday night the possible relations of the new banking law and cotton warehousing were touched upon by Frank A. Vanderlip, president of the National City Bank. In his address he said:

"The plan which your chairman has outlined for the creation of a comprehensive warehouse system, to be operated in a manner which will give the broadest currency to credit obligations based on cotton stored in these warehouses, is both interesting and significant. It is interesting as showing the tendency toward an important movement in the cotton trade. It is significant in indicating an awakening on the part of business men to certain distinctions in banking credit that are of great importance.

"During the discussion connected with the enactment of the new banking law there has been much education of bankers and business men alike on the subject of ideal banking credit. Not having reached, in all respects, the settled commercial status that we find in some of the European countries, we have failed here to draw the distinction that is so clearly drawn in most European banking centers between loans for capital purposes and loans of a self-liquidating character, the funds for the repayment of which must naturally and almost inevitably come promptly into the hands of the borrower in the seasonal course of his business.

"Our new banking act was designed to accomplish various things. In the minds of some of its advocates the things sought to be accomplished I fear were not entirely economic. But the fundamental economic principles back of the idea which led to this legislation prominently included the creation of a discount market. That is to say, the creation of a form of bankable paper which would be so secured through the names of acceptors and endorsers that the credit risk disappeared and the paper would find a ready market wherever there was money to loan, even though there existed in those quarters no knowledge regarding the credit of the original maker. Whatever will tend toward the creation of such a discount market will be helpful in lowering the rate of interest which the commerce of the country must pay. Whatever will tend to give broad currency to commercial paper, a currency wider than any knowledge of the maker's credit, will tend toward an equalization of rates, toward sounder banking conditions, and toward a lowering charge on commerce for interest. Such a proposition as has been here presented for giving a wide currency to loans made against cotton in warehouses is a fundamental movement, the first among a good many others now gathering force, I believe, that will eventually lead to a great discount market, where idle funds from the whole country, and, indeed, from international money centers, may find sound investment in short-term commercial credits.

"It seems to me admirable that you men who are interested in cotton manufacturing are thinking of some improvements in underlying methods which may help you in the conduct and extension of your business. The business of cotton spinning and weaving cannot be

cited as one of the phenomenal industrial developments of America, at least not in its recent years of history. Your business has grown, and it would be easy to present statistics that would be flattering to your management. On the whole, however, looked at from a world point of view, the cotton manufacturing business in America in recent years only about held its own in comparison with world development. While great growth is shown, quite as great growth is exemplified in the statistics of some other countries. With all the advantages of location in the midst of the production of two-thirds of the world's supply of raw material, with the greatest homogeneous market in the world right at your hand, and that protected from foreign competition by high tariff; with the advantage of having the lowest rates of transportation of any country in the world, and of being historically a people of the greatest mechanical genius—in spite of all these advantages we have not seen the cotton manufacturing business in this country forge ahead as have many great lines of industry.

"The United Kingdom, importing every pound of cotton she manufactures, is still the world's great cotton mill. British spinners export as great an aggregate of cotton manufactures in a month as you do in a year. In fact, the United States takes its place alongside of India in its ability to supply the outside world with manufactured cotton goods. Germany exports well over twice as much as we do, and our total is exceeded by Belgium, France, and even little Switzerland. In the light of these facts it is obvious that while in a protected market of gigantic extent we have been able to build up the greatest spinning business of any country in the world, we still are not fully supplying our own domestic market, importing over \$60,000,000 worth of cotton goods annually, and the advantage of great manufacturing units have not enabled us to get our costs down to a point to make us even a factor of the first order in the world's markets for manufactured cotton. It well behoves you who are interested in this business, therefore, to think broadly and deeply on fundamental subjects in a way that may tend to cheapen your cost of production and put you in line with the other great cotton manufacturing nations for world competition.

"One important element in the cost of production, of course, must always be the cost of capital, and you are undoubtedly taking a step in the right direction when you endeavor to give a more universal character to that part of your credit operations which can be based directly on stored raw material, and by doing that make that portion of your capital cost you less, because the security for your loans will be more broadly understood and the capital attracted to them come from wider fields.

"Broader speaking, the cost of a manufactured product is made up of the price of raw material, expense of transportation and the actual cost of manufacture. The cost of raw material at its point of production is substantially the same to all users. The cost of transportation from field to mill is measured approximately by distance, and here you have great advantage over all your foreign competitors. The cost of manufacture is made up of many elements, but among the principal ones are the cost of capital, the perfection of mechanical equipment, and the price and efficiency of labor.

"On the side of the cost of labor you cannot hope, nor should you hope, to make that item in your cost sheet at all comparable with the same item in the cost sheets of your foreign competitors. At the risk of sounding a discordant note I will say that, in my opinion, you will not permanently reduce your labor cost by trying to compete through the employment of child labor with the lower labor level of other countries. I believe you must find ways of meeting world competition other than in the per diem cost of the labor item. Whether or not you have done everything you can in the perfection of mechanical equipment is a technical question, of which you are a far better judge than I can be, but it is at least obvious to a layman that the United States is not taking the great lead in inventive appliances in cotton manufacturing that it has in some other fields, and it would seem, therefore, that there might be opportunity there to do something toward meeting foreign competition.

"The great advantage which you hold is in cost of transportation. In view of high labor cost there are impressive obstacles in the way of your meeting world

competition by reducing the cost of manufacture. If the cost of raw material were reduced, however, the importance of the element where you have the advantage over all the world, the cost of transportation, would in time be further emphasized. Would it not seem, therefore, that one of the directions toward which this country might best turn its attention in any effort to take its place in world competition in this field should be in the reduction of the cost of raw material?

"Although we supply nearly two-thirds of the raw cotton of the world, I still believe that we present, in our methods of cotton production, one of the most gigantic examples of incompetency to be found anywhere. The huge and rapidly growing totals of our cotton crop are sources of satisfaction until we examine them in connection with our acreage. That examination discloses four-tenths of a bale an acre is about the average of our production. In that figure, I believe, is to be found an important indictment against the United States, although it is by no means a type of indictment that lies solely against the cotton planters of America.

"The great bankers of Europe have a practice, that I think might well be copied in this country, of issuing annual reports in which are to be found a broad and stimulating discussion of current and financial economic conditions. I have just been reading the annual report of the Deutsche Bank, the greatest financial institution in Germany. After presenting some statistics of imports and exports of the leading countries of the world, showing Germany in a position second only to Great Britain, and away ahead of the United States, and indicating how, owing largely to favorable trade balances, the stock of gold held by the Reichsbank increased during the year under review by nearly \$100,000,000, there occurs this paragraph:

"It is not to favorable climatic conditions alone that German agriculture is indebted for plentiful and increased returns. The following comparison of the produce of the leading agricultural countries will show to what extent progress has been made in the development of German soil through industrious work as well as through expenditure of capital in the shape of artificial fertilizers, machinery and electrical power."

"In the table which follows, the crop returns are shown for the leading countries of the world and for the principal agricultural products. We must remember that Germany is not a fertile country. Whatever German agriculture wins from the soil must come through hard work and intelligent methods. That country has nothing comparable to the natural advantages which we enjoy. These comparative crop returns, therefore, are all the more significant.

"This table of comparative yield shows that Germany reaps per acre 18 hundredweight of wheat, against 8½ in the United States; 14.7 hundredweight of rye, against 8.4 in the United States; 15½ hundredweight of oats, against 10.7 in the United States, and 120 hundredweight of potatoes, against just half that figure in the United States. The United States and European Russia fall into the lowest class of production, and even Canada in every item shows a greater yield than do our own acres. Europe produces no cotton, and therefore a similar unfortunate comparison cannot be made with our cotton yield, but what is perhaps still better, we can make comparison of our acreage yield with the easy possibilities under intelligent cultivation of what our own acres have been made to produce.

"We are now devoting about 35,000,000 acres to the production of cotton, and a good crop is about 200 pounds of ginned cotton an acre. The Department of Agriculture, which seems to be the one arm of our Government truly devoted to upbuilding an intelligent development of our resources, has demonstrated beyond any question what a shamefully small average yield this is.

"At the present time the Government has an arrangement with about 525 county agents in Southern territory where cotton is the principal crop. These county agents carried on demonstrations with 12,000 individual farmers last year. The acreage involved was 104,000 acres. On these acres the department's instructions were carried out by the farmers with their own tools, teams, labor and fertilizer, the department merely furnishing the instructions. The result was an average yield of 1005 pounds of seed cotton per acre. In the States where these experiments were carried on, the present average yield is 546 pounds of seed cotton per acre. It is, therefore, claimed by the Department of Agriculture that as a direct result of the instructions given to a limited number of farmers, the number of

pounds of seed cotton produced was increased by approximately 95 per cent.

"As an illustration of what can be done, the Department of Agriculture cites the case of an old negro farmer near Marion, Ala. This old colored man, by economy and hard work covering a number of years, acquired a farm of 163 acres, but his land was poor, and not infrequently he found it did not produce even enough for seed. It occurred to him he might get better results by confining his efforts to a smaller acreage. He selected two acres near his cabin and practically abandoned the remainder of his farm. For years he has devoted himself to increasing the producing capacity of this small area. He went to work first to fertilize the two acres. He hauled into the field and plowed under dead leaves and other decaying vegetation from the nearby woods, cotton stalks and corn stalks, until he had brought the fertility of this little plot of ground up to a high state. So that in one year recently he succeeded in growing 506 pounds of cotton on a measured one-eighth of an acre. This is at the rate of eight bales per acre, and although this man is advanced in years, his ambition yet is to produce nine bales of cotton to an acre, and the Department of Agriculture is inclined to think that he will accomplish that result.

"The Department of Agriculture has been sending experts into the cotton belt who have taught the planters the benefits of good cultivation, rotation of crops, care and selection of seed, and the advantage of co-operation among the farmers themselves in securing uniformity in the kind and quality of the cotton raised. The results so far obtained are filled with promise. In many instances the acreage yield has been increased to as high as two bales per acre.

"The boll-weevil continues its ravages through a large section of the cotton belt. The total loss in cotton production in the United States due to the boll-weevil up to this time is believed to be in excess of 10,000,000 bales, which at the low value of \$50 per bale, not counting the loss of seed and cost of fighting the pest, represents a loss of \$500,000,000. This estimate covers only the loss incurred in acres planted to cotton, and takes no account of the reduction in production due to fear of the ravages of this insect.

"The experts are making progress in fighting the boll-weevil, principally through the new methods of cultivation. Through their efforts in many sections of the infested regions, planters have been able to secure an average crop.

"In the agricultural appropriation bill now pending in Congress is an item of \$46,000 to continue the department's efforts to control disease of cotton and other crops. Another paragraph appropriates \$180,000 for investigating the ginning, handling, grading, baling, gin compressing and the establishment and demonstration of standards for the different grades of cotton. Of this sum, \$60,000 is to be used in testing the waste, tensile strength and bleaching qualities of the cotton as standardized by the Government. Another section appropriates \$628,240 for farmers' co-operative demonstrations for the best methods of meeting the ravages of the boll-weevil.

"An important work is being done by the cotton experts of the Government in the introduction of long fiber Egyptian cotton in the Southwest, especially in Arizona. This work may increase the area of our cotton belt. A year ago the Arizona farmers in and about the Salt River Valley planted approximately 4500 acres in Egyptian cotton. About 3500 acres came to maturity the next year. The remaining 1000 acres failed by reason of lack of water, poor cultivation and other hazards. But of the acreage which survived, the total yield was 2200 bales for the 3500 acres. Of this high-grade cotton, the United States imports each year about 100,000,000 pounds, at a cost of approximately \$20,000,000, the price per pound in many cases being 50 per cent. more than the average American cotton, except the Sea Island varieties.

"The planters in the Southwest, in consequence of the fact that the yield per acre of the 1½-inch fiber Egyptian cotton is fully as great as cotton in the Southern States, with the price much higher, have planted his year about 15,000 acres. The prospect is that this acreage will be greatly increased during the next few years.

"From the demonstration which the Department of Agriculture has made, covering wide territory and many seasons, it is, I believe, a sage assertion that thoroughly efficient methods of cultivation would double our cotton crop on the same acreage now devoted to that staple. The world will be ready to consume that increase as soon as, under the most optimistic view, we

may hope that it will be accomplished. I believe there is no more important service that you men who are engaged in the cotton manufacturing business can perform looking toward the development of the cotton industry than to do all that you can to awaken public sentiment to the need for efficient methods of cotton cultivation. A realization of such improvements in methods as this branch of the Government is trying to bring about will do more toward the upbuilding of your business, it seems to me, than you are likely to accomplish with the same effort in any other direction."

At the conclusion of Mr. Vanderlip's remarks there was a discussion which took a wide range, and was participated in by many members.

Lewis W. Parker said the warehouse would be a great help to the manufacturer, as it would relieve him of the necessity of buying in one season sufficient cotton to run his mill for a year, a necessity which was very burdensome.

Thomas E. Beale, a Boston banker, said he had long believed in cotton as collateral, and therefore thought a well-managed system of warehouses would be of great benefit.

John M. Miller, vice-president of the First National Bank of Richmond, Va., said certificates from such warehouses would be better collateral than State or municipal bonds, because they would be backed by a consumable commodity and readily liquidatable. The South, he said, needs cheap money, and this would give it. The bankers wish to see the South have cheap money, so that it will build up rapidly. The Richmond bankers, he said, would co-operate in the warehouse plan to bring cheap money.

W. A. Law, vice-president of the First National Bank of Philadelphia, thought the Duke plan was simple, logical and direct. He said there was no other paper in this country for which there would be so broad a market as for the warehouse certificates.

Numerous other gentlemen took part in the discussion, all speaking to the same general effect.

In the closing session a special committee of 15, of which Stuart W. Cramer of Charlotte, N. C., is chairman, was authorized to formulate plans for the financing of the proposed bonded cotton warehouse system in the South. In a report on the subject Mr. Cramer summarized the plan as follows:

"(1) The incorporation of a strong warehouse company, starting out with a capital stock of approximately \$5,000,000, confining its operations to a comparatively limited area having a large cotton production and consumption, particularly the latter, until it has been thoroughly organized and questions of detail in administration and operation have been solved, after which it is proposed to gradually increase the sphere of operations of the company to such extent as the needs and requirements of the country appear to warrant, with corresponding increase in the capital stock and its other resources.

"(2) The nucleus of the organization will consist of the mill warehouses of the various cotton mills in the district, the warehouses to be acquired by the warehouse company on a 20-year lease, or equivalent arrangement for which common stock will be issued in payment thereof, surrenderable upon termination of the lease.

"(3) For working capital and for building, buying and establishing additional warehouses at suitable points 7 per cent. preferred stock will be issued.

"(4) An arrangement with the National City Bank, or other satisfactory companies, whereby for a nominal sum the warehouse company's receipts will be guaranteed. This feature would be optional with the holder of the receipt, but when so guaranteed the receipt would constitute probably the most desirable commercial paper in the whole money world, and as such will doubtless be eagerly sought."

When the convention met for its first session at 2 o'clock on Monday afternoon the members were welcomed to New York by George McAneny, president of the Board of Aldermen, to which response was made by T. H. Rennie of Pell City, Ala. President Stuart W. Cramer then read his annual report.

Mr. Cramer was presented with the president's medal, according to a rule long established, by which such presentation is made to each retiring president.

N. A. Cobb, agricultural technologist of the United States Department of Agriculture, made an address on "Spinning Tests of Different Grades of Cotton," in which he described in detail the investigations made and the results obtained. One result determined was that in the bleaching of cotton its tensile strength is probably increased rather than diminished. Another

was that the good ordinary grade produced thread of a higher tensile strength than good middling. Mr. Cobb did not regard these experiments as entirely satisfactory or the results obtained as conclusive, because the experiments were limited to a small number of bales, owing to the small appropriation made for carrying on the experiments. The present congress would, he said, make a much larger appropriation for the same work, which would be carried on in a much more satisfactory way.

Mr. Cobb told also of the new system of grading established under Government direction, by which it was hoped the grading of cotton would be absolutely standardized. He said the demand for the department's published work on grading cotton had grown so rapidly that he was sure the grades must be meeting the approval of the people engaged in the cotton business.

Lewis W. Parker of Greenville, S. C., said the results of the Government experiments with respect to its spinning tests were not only not calculated to be helpful, but that they were fraught with actual harm, and should not be published. The cotton spinners, he declared, had been endeavoring to bring about the raising of the grades by encouraging the growers to keep their cotton clean, and now the Government would publish the results of experiments showing that dirty, low-grade cotton made a stronger thread than the high grade, thus making the grower believe the spinner had been paying him too little for his low-grade cotton.

There was considerable discussion of the matters touched on by Mr. Cobb, carried on for the most part in a colloquial manner.

Ralph M. Odell, commercial agent of the United States Department of Commerce, who recently returned from a visit to the Levant, the Red Sea district and East and South Africa, addressed himself to the "Cotton Goods Export Trade," of which he took a very optimistic view. He showed that the exports of cotton goods had more than doubled in the five years from 1908 to 1913, and thought the outlook bright for a continued increase.

When the association met on Tuesday morning John A. Fox, secretary of the Mississippi Levee Board, was introduced for a 10-minute speech, in which he strongly urged support for appropriations to complete the building of levees to protect the lands of the lower Mississippi from the overflow water coming from 1,250,000 square miles of territory embraced in 31 States. He said the proper protection of the delta lands would add millions of acres to the cotton-growing area of the country and ultimately increase the output of cotton by 10,000,000 bales.

An address by Arthur R. Marsh on "The New Rules of the New York Cotton Exchange" proved of great interest and was heard with close attention. Mr. Marsh described how 40 years ago the Exchange had fixed grades to meet the views of the South as expressed by the representatives at a meeting held in Augusta, Ga., and then how changes had been made at various times to comply with the changing views of that section. He said the chief trouble under which the Exchange labored was to find what the South wanted, as everyone admitted that the wishes of that section must control to a large extent. Even now, he said, the Exchange was being severely criticised by one section of the South for admitting too much cotton to contract, while from another section came criticism equally severe because it admitted too little. The Exchange has, therefore, reached the conclusion that the best way to meet the views of the South is to accept the representations made by the men who represent that section in Congress and adopt the Government types as the basis for classifications. This has been done, and the new classification will go into effect at the end of the present week. In 12 months, said the speaker, all classifications will be based on the Government types, and the American classification, which has lived an honorable life of 40 years, will be thrown into the scrap heap.

Lewis W. Parker submitted the report of the committee on the New York Cotton Exchange, which took issue with the views expressed by Mr. Marsh on a number of questions. The committee said it was not opposed to an exchange which reflected the true value of a commodity, but was opposed to the making of arbitrary prices for purposes of manipulation. The report opposed legislation prohibiting exchanges, but favored House Bill No. 15,318, now pending in Congress, which is regulative in character. The report expressed appreciation of the efforts of Congress to accomplish the results sought.

A discussion of the Duke warehouse plan was inter-

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jected here, and a number of gentlemen presented their views. Mr. Marsh said the members of the New York Cotton Exchange were largely in favor of such a warehouse plan, but pointed out some difficulties of detail, and spoke also of adverse legislation in some of the Southern States.

C. Siedenburg, Jr., of the New York Cotton Exchange, said he thought the difficulties could be overcome. He spoke also of the imminence of legislation in some of the States, which might cause some trouble in working out the details of the warehouse plan.

Mr. Cramer said the laws would not be found in the way, and that there would be no trouble in making the Duke plan conform to statutory requirements.

A. M. Patterson of Philadelphia read a paper on the "Textile Alliance," and John P. Wood of the Textile Bureau told of the operation of that organization, which he said was intended to aid the Government in securing the tariff tax that is its due by furnishing expert testimony as to the value of textiles imported into the country, instead of letting such values be fixed upon the ex parte testimony of the importers.

R. M. Miller, from the committee on tariff and legislation, made a report which told of what the committee had done. The chief trouble encountered was the indifference of the manufacturers and their lack of knowledge as to what they wanted. The committee had been successful, said the report, in securing the modification of certain sections of the tariff bill, which rendered it less harmful than it would have been had those sections remained as first written.

James P. Gossett reported from the committee on international federation, recommending the appointment of a committee to bring about the affiliation of the association with the International Federation.

T. I. Hickman of Augusta, Ga., was elected president for the ensuing year; Scott Maxwell of Cordova, Ala., was chosen vice-president, and C. B. Bryant of Charlotte, N. C., was re-elected secretary. John A. Law of Spartanburg, S. C., was made chairman of the board of governors.

The convention then adjourned to meet at a time and place to be fixed by the board of governors.

GEO. BYRNE.

### Bonded Cotton Warehousing.

#### *Editor Manufacturers Record:*

A good deal has been said about lending money direct to owners of cotton and grain on warehouse receipts. I have a plan which, I think, will solve this problem. The great need in the South is more money, of course. We have two things which we can use as collateral, to wit: land and cotton. I am glad to state that considerable sums of money are being loaned by insurance companies and others, and this will take care of itself. What we need most at the present time is to get our agricultural products in shape to be used as collateral. My suggestion is that Congress pass a separate bill authorizing national bonded warehouses in which non-perishable products of the soil can be stored, receipts to be issued therefor, and upon which the owners could borrow money in any part of the country.

If you will excuse me for a personal allusion, I will state that I have been farming all of my life, have been practicing law for 30 years, and have been engaged in the banking business all this time. About 15 years ago I saw a necessity of aiding our farmers in marketing their crops, and organized a bonded warehouse at this place. This warehouse is built on modern designs, practically fireproof, with the best sprinkler system, etc. The insurance on contents is at an exceedingly reasonable rate. The idea is that the moneyed world knows that the cotton crop has to be marketed within a short space of time, in order that the farmers can meet their obligations with the local merchants or banks and the local banks be prepared to meet their obligations for money borrowed elsewhere. Therefore, the owner of cotton has to take whatever price he can get for it. If this price should happen to fall even 25 per cent. or 50 per cent., he has to sell. While I am speaking of cotton, I realize, of course, that no law could be passed governing this commodity alone. Ten years ago the annual agricultural products of South Carolina amounted to something like \$54,000,000. Now they amount to nearly \$140,000,000. Our banking facilities have always been inadequate. I do not believe in appealing for help when one can help himself, but in this complex nation of ours, it is necessary for the citizens to ask the National Government for aid under these peculiar circum-

stances. If the States were allowed to issue money, then it would not be necessary to go to the National Government; but when we remember we gave up this right to the general Government and can issue money only on prohibitive terms, then we can see the reason and justice of asking Congress to help us. It took me some time to make up my mind that this was the proper thing to do. We see where the Government appropriates money to educate us and aid us in making greater crops. We know of no constitutional provision for this; however, we are not complaining, but, on the contrary, are thankful. A great and good work is being done, but after we are taught to make greater crops, it would not be wrong to help us get the best results we could for the products of our labor. By doing so our citizens will be encouraged to go on the farms, thereby improving their health and giving employment to many millions of idle people, and they could help raise something to live on. This system would increase the price of land, give employment to labor, would help the merchants, and would benefit the cotton mills, and would draw a tremendous amount of trade from the other countries of the world which use our cotton. Farmers would be encouraged to raise greater crops, knowing that they could get a fair price. My understanding is that the Government issues certificates on stores in bonded warehouses. I can see no difference in this and receipts or certificates given for cotton in similar warehouses, except that the Government gets a revenue out of the whiskey, and it would be said that the owners of cotton would not want to pay a tax. This is true, but they would be willing to pay whatever expense would be necessary to get a receipt countersigned or guaranteed by their cotton, corn or grain. There are three ways to accomplish this:

The first is by private warehouses similar to the one outlined above. This method, however, is inadequate, in that it does not take much money to build a warehouse and that it would need banking capital, in that it would require it for only a part of the year. Some time ago I listened to a man speaking to the farmers along this line, and he advocated that wherever a few thousand bales were raised to build warehouses. He meant well, but evidently he had not studied his subject. It would not do to build warehouses unless they were practically fireproof and unless equipped with sprinkler system, in order that the contents could be insured, and at a reasonable rate. No one would loan money on such contents uninsured. This method, however, helps some locally, but my thoughts are to get a system that would aid the whole country. These local warehouses can borrow some money at times, but this depends upon the reputation of the management more than the capital of the company.

The second way is for the States to go into the warehouse business. This is a big problem for the people to consider, and there is a great deal to be said on both sides. However, some States might pass such laws and others would not.

The third way—and this is my solution of the problem—is, as above stated, for Congress to pass an independent warehouse bill. I do not know that the National Government would build or that it would desire to own warehouses, but it occurs to me that it would recognize all warehouses which are built according to modern standards, and if it should be thought necessary for the title to be in the Government, it could lease these warehouses for a nominal rental. Such warehouses, then, could be declared to be ready to receive non-perishable products of the soil. Before this is done, however, let the warehouse company furnish the Government with strong bonds to protect it in every way, and then let receipts be given by the warehouses, countersigned by some agent of the Internal Revenue Department. These receipts would specify the weights, grade, staple, etc. Let the warehouse company pay the Government what expense is necessary to get the receipt—in other words, a very small fixed charge. There will be no compulsion upon anyone to store the product, but in case they desire to do so they would have it in a form which would be used as a collateral. The result, in my mind, would be that money would flow in the direction of the warehouses from all parts of the country, and the owners would be, therefore, enabled to market their product throughout the entire year instead of being forced to sell in panicky times. As everyone knows, cotton deteriorates but little, and there is a ready market every day in the year; hence money should be borrowed at the lowest rate.

I realize that the above suggestion is a little bit revolutionary, but this is a progressive age, and it is necessary to enact laws to meet the requirements of the

times. In order to get people to lend or invest their money they must be convinced the security is safe. The plan above outlined seems to me to be entirely reasonable, constitutional and practical.

N. B. DIAL.

Laurens, S. C.

### Northern Texas Utilities Co.

Northern Texas Utilities Co., Dallas, recently incorporated with \$500,000 capital, consolidates the properties owned by Hiram Grosman & Co. It will operate electric light and power plants, gas works, ice factories and water systems in North Texas counties. Hiram Grosman is president, and W. C. Woodlief is secretary, treasurer and engineer. Directors are as follows: Messrs. Grosman and Woodlief, Dallas; C. H. Boeckeler, Bowie, Tex.; W. D. Austin, Rockwell, Tex.; J. P. Quirk, Minneapolis; J. B. Round, New York; J. J. Mueller, Chicago.

### Site for Paper Board Mill.

Organizations interested in securing industrial enterprises for their cities will be interested in a letter received by the MANUFACTURERS RECORD, as follows:

"I wish you would announce that parties desire to secure a mill site in the Central South, on a railroad, for the manufacture of paper boards, and want to be located where waste paper could be secured at a reasonable cost."

(Letters addressed to "Paper Board Mill," care of MANUFACTURERS RECORD, will be forwarded.)

### The Cotton Movement.

In his report for April 24 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 236 days of the present season was 13,715,891 bales, an increase over the same period last year of 692,054 bales. The exports were 7,991,732 bales, an increase of 510,757 bales. The takings were, by Northern spinners, 2,259,650 bales, a decrease of 77,129 bales; by Southern spinners, 2,667,405 bales, an increase of 200,757 bales.

### A \$250,000 Phosphate Mining Company.

Meredith-Noble Phosphate Co., Jacksonville, Fla., has been incorporated with a capital stock of \$250,000 for the purpose of mining phosphate, and its officers are as follows: President, Guy H. Noble of Somerville, N. J.; vice-president, James F. Meredith of Fort Myers, Fla.; secretary-treasurer, Geo. H. Hooper of Somerville.

### \$10,300,000 Fuel Oil Company.

Freeport & Tampico Fuel Oil Corporation has been incorporated with a capital stock of \$10,300,000, and the following officers: Thomas B. Gay, president; Andrew D. Christian, vice-president; H. H. Chalkley, secretary; Ernest B. Flippin, treasurer; all of Richmond, Va. No further details are now available.

### \$1,000,000 Iron Works.

R. S. R. C. and Charles T. Stewart have incorporated the Stewart Iron Works of Covington, Ky., with a capital stock of \$1,000,000. This company has a plant for manufacturing jails and iron fence. R. C. Stewart is president; Robt. S. Stewart, vice-president; W. H. Totten, secretary; A. C. Aplin, treasurer.

### \$2,000,000 Compress and Warehouse Company

Capitalized at \$2,000,000, the Standard Compress & Warehouse Corporation, of Richmond, Va., has been chartered, with the following officers: Andrew D. Christian, president; H. H. Chalkley, secretary; Ernest B. Flippin, treasurer. No further particulars are now available.

**Iron and Steel Institute.**

The tentative program for the meeting of the American Iron and Steel Institute at New York May 22 includes the address of the president, Elbert H. Gary, and the following papers:

"Modern American Blast Furnace Practice," by Hermann A. Brassert of the Illinois Steel Co., South Chicago, Ill., with discussion by John N. Reese of the Republic Iron & Steel Co., Youngstown, O.; Arthur J. Boynton of the National Tube Co., Lorain, O.; Edward B. Cook of Pickands, Mather & Co., Cleveland, O., and Richard V. McKay of the Pennsylvania Steel Co., Steelton, Pa.

"Some Developments in By-Product Coke Ovens," by William H. Blauvelt of the Semet-Solvay Company, Syracuse, N. Y., with discussion by Carl A. Meissner of the United States Steel Corporation, New York city.

"Selling Policy as Influenced by Modern Cost Accounting," by Thomas J. Bray of the Republic Iron & Steel Co., Youngstown, O., with discussion by L. E. Block of the Inland Steel Co., Chicago, Ill.

"The Practical Importance of Heat Treatments in the Steel Wire Industry," by John F. Tinsley of the American Steel & Wire Co., Worcester, Mass., with discussion by J. W. Smith of the Wyman & Gordon Company, Worcester, Mass.

"Transportation," by J. Fred Townsend of the National Tube Co., Pittsburgh, Pa., with discussion by Delos W. Cooke of the Erie Railroad Co., New York city, and Thomas O. Cole of the Bethlehem Steel Co., South Bethlehem, Pa.

"Recent Progress in the Building of Large Steam Turbines," by Francis Hodgkinson of the Westinghouse Machine Co., East Pittsburgh, Pa., with discussion by H. G. Stott of the Interborough Rapid Transit Co., New York city.

"Sanitation in Panama and Alabama," by Dr. Lloyd Noland of the Tennessee Coal, Iron & Railroad Co., Birmingham, Ala., with discussion by Dr. Sidney McCurdy of the Youngstown Sheet & Tube Co., Youngstown, O.

**For Santo Domingo's Trade.**

B. Trueba, 356 W. 23d street, New York, writes to the MANUFACTURERS RECORD as follows:

"I am Spanish and an engineer graduate in Barcelona six years ago, with practice in erecting machinery and building and road construction, and experience on city engineering, as I was two years and a half city

engineer in Ponce, P. R. Since August I have been working as a mechanic to get experience on this line of my profession, with American Engineering Co. of Philadelphia. References: F. Baker, Jr., of Franklin Baker Company, 700 N. Delaware avenue, Philadelphia; Ermelindo Salasar, manager of bank El Credito y Ahorro Ponceño, P. R. My idea is getting representation or agency from concerns of this country that want to develop their market in Santo Domingo. I intend to work on machinery, especially for sugar, cotton, coffee, cocoanut, road-making, contracting, agricultural implements, etc. I will be accompanied by a brother, who during a year has been studying export and import business in New York. He will have charge of such goods as house furniture, typewriter machines and supplies, iron work for the house, etc."

**By-Products of Coke Making.**

[Chattanooga News.]

While many Chattanoogans have rejoiced at the recent announcement made by the Durham Coal & Iron Co. to the effect that a million-dollar coke and by-products plant would be built here, few are aware of what such a plant will be like or what the by-products will be.

In the first place, the plant will be unique in that the coke ovens to be installed will be unlike those used anywhere else in the country, being of the very latest patent in this line. The company has been waiting six or eight months, in fact, for the patent to be tested out before deciding to use it. In making coke by the newly-patented process the fire in the ovens will not touch the coal at all, and it is said that on this account the very highest per cent. of the carbon will be retained in the coke.

Coke, of course, will be the chief product of the plant. The by-products will consist of creosote, tar, ammonia, sulphur, benzol and gas.

Creosote is used for treating wood so as to make it lasting. Paving blocks, crossties, telephone and telegraph poles and timbers used in wharves, piers and other wooden works in salt water are so treated. Creosoting makes the wood waterproof, and therefore more enduring.

The production of creosote is expected to attract a creosoting plant to this city which will take the creosote made by the Durham Company and use it for treating timbers for the uses mentioned. The only

creosoting plant in the South now is at Mobile, and lumber has to be shipped there from long distances to be treated. Such a plant in Chattanooga would be a valuable addition to the city's industries.

Tar will be made in large quantities. It will sell for about \$1 a barrel. Tar, as everyone knows, is used for various purposes. It is becoming more and more used for roofing. Ammonia, another product, is eagerly sought after by manufacturers of fertilizers. While sulphur will not cut such a large figure, it will nevertheless be a product which will be readily salable. Benzol is used for practically the same thing as gasoline. It is not determined yet whether or not a benzol plant will be installed, but it is more than likely that one will be.

Gas will be one of the big products of the plant. It is estimated that 5,000,000 feet will be available for sale every day. When it is considered that the city of Chattanooga consumes, so it is understood, only about 700,000 feet of gas a day, it will be seen what an immense product this will be.

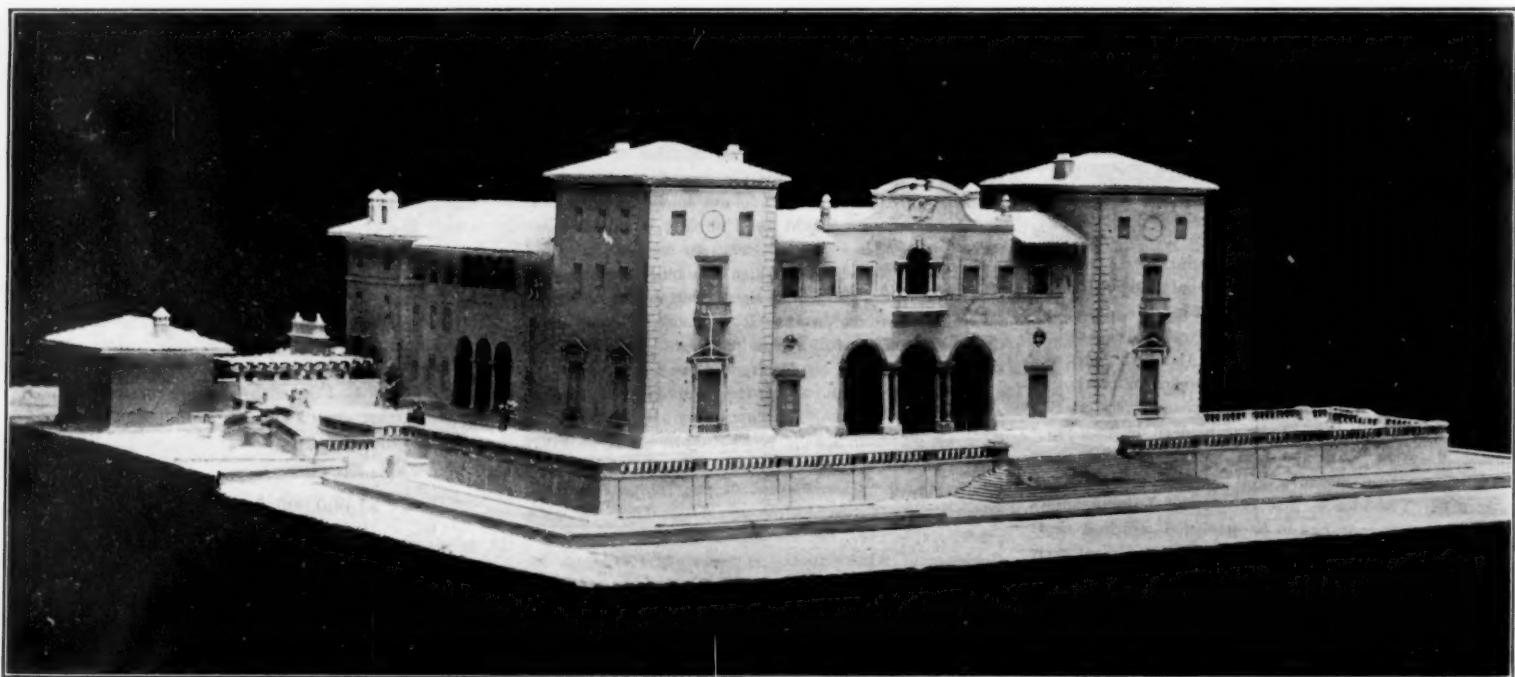
The gas will be separated into its two kinds, one for illumination and one for heating. The illuminating gas will be sold at a rate of 20 cents a thousand cubic feet and the heating gas at from 6 to 10 cents a thousand.

This great amount of gas, especially the heating kind, being available at such a low figure is expected to be the means of attracting industries here which use gas in the manufacture of their products. It may be the means of bringing a glass factory.

**Computing Scales, Etc.**

Otto F. Mack, Auf dem Haigst No. 36-38, Stuttgart, Germany, writes to the MANUFACTURERS RECORD that he is prepared to represent American manufacturers of products suitable for the trade of Europe. He is himself a native American, and has been representing American manufacturers since 1897. At present Mr. Mack is especially desirous of arranging to sell computing scales. He is also interested in typewriters, fountain pens, cameras, etc.

It is reported that Sallee Bros.' handle factory at Pocahontas, Ark., has closed a contract to the United States Government for a carload of 300,000 handles to be shipped to the Panama Canal.



THE DEERING RESIDENCE AT MIAMI, FLA.

To be erected for James Deering, Chicago; main building about 120x120 feet, with 60-foot court in center; reinforced concrete and semi-fireproof construction; exterior of white stucco, with native stone and artificial stone trimmings; marble steps and porches; four-inch reinforced concrete floors, arched with steel beams; special mission tile roof; copper metal work; mechanical indirect steam heat in principal rooms; lighting from city lighting plant and storage batteries, with motor generator set and storage batteries for motors; two Otis automatic electric elevators and dumbwaiter; architect, F. Burrall Hoffman, Jr., New York; general contractor, George Sykes Company, New York; superintendent of construction, J. A. McDonald, Miami. While no authoritative announcement has been made as to the cost, it is said the structure alone will cost about \$500,000, and \$500,000 more will be expended for ground and improvements. The accompanying illustration presents a view of the dwelling as made from a photograph of a plaster model.

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**The Birmingham Iron Market.**

[Special Correspondence Manufacturers Record.]

Birmingham, Ala., April 25.

Not in a long time has the Birmingham district experienced such a quiet pig-iron market as during the past week. While there have been many inquiries as to prices of pig-iron by prospective buyers, there have been few orders booked, probably less than 5000 tons by all the furnace interests in the district. Of this quantity, 1500 tons was of special analysis iron for export, the Tennessee Coal, Iron & Railroad Co. shipping 500 tons to Genoa, Italy, and 1000 tons to Valparaiso, Chile and other South American ports. The shipments went via Savannah, Ga., and via New Orleans.

Pig-iron manufacturers when approached and asked as to conditions stated that while the market is very quiet now, they feel that conditions will improve in a short time and there will be an increased demand for the product of the furnaces.

There has been a considerable movement in manufactured products, large shipments having been made during the week to Atlanta and other points, and steel shipped to Columbus, Ga. The steel mill at Ensley is shipping an order of 8000 tons of steel rails to China, this order going forward with a rush. The American steel and wire mill is working a large force, and is turning out large quantities of finished products that are sold easily.

The Woodward Iron Co. has three idle stacks, all three furnaces being out for repairs, but one will probably be ready to go in blast within 30 days. The Woodward company on April 18 gave the contract to a Pittsburgh firm for two of the largest type of blowing engines, which will be installed at No. 2 furnace at Woodward as soon as they can be delivered. The engines are similar in size to the ones installed in No. 1 furnace three months ago.

The following are the prices of pig-iron per gross ton f. o. b. Birmingham:

- No. 1 foundry and No. 2 soft, \$11.25 to \$11.50.
- No. 2 foundry and No. 2 soft, \$10.75 to \$11.
- No. 3 foundry, \$10.25 to \$10.50.
- No. 4 foundry, \$10 to \$10.25.
- Basic iron, \$10.50 to \$11.
- Charcoal iron, \$23.50 to \$24.

The old material market has done nothing, very few sales, and scarcely any inquiries, dealers reporting an exceedingly quiet market, with little prospect of any improvement in the immediate future. Prices are quoted the same f. o. b. gross Birmingham, as follows:

- Old iron axles (small), \$15 to \$15.50.
- Old steel axles (light), \$15 to \$15.50.
- Old iron rails, \$12.50 to \$13.50.
- No. 1 railroad wrought, \$12 to \$12.50.
- No. 2 railroad wrought, \$10 to \$10.50.
- No. 1 country wrought, \$9.50 to \$10.50.
- No. 2 machinery cast, \$10.50 to \$11.
- No. 1 steel scrap, \$10.50 to \$11.
- Standard car wheels, \$12 to \$12.50.
- Tram car wheels, \$10.50 to \$11.
- Light cast and stove plates, \$9 to \$9.50.

The cast-iron pipe market is still very quiet, with few orders booked, although many of the plants are operating on reduced time filling the small orders that come in. At all of the plants there are good shipments, but these are on orders booked some time ago or are filling orders that are permanent. The Central Foundry Co., while not operating at this time, is shipping large quantities of its output. Prices are about as quoted, although some pipe has been sold at less than quotations.

Some coal-mining interests report a better condition, but none shut down a few months ago have resumed operations, and will not, as the summer is dull in coal-mining sales and there will be no increase in production. One mine that has operated on full time for two years has reduced to half time on account of a large furnace out of blast, but this mine will resume full operation by the middle of May.

The coke market is fairly good, with output normal and prices the same as quoted. There has been no falling off in the mining of iron ore, and those companies mining on Red Mountain are stocking all raw material not needed at the furnaces at this time. Both the T. C. I. Co. and the Woodward Company are stocking at their mines.

The Alabama Power Co. will take a large number of business men of Birmingham to Lock No. 12 on the Coosa River on Wednesday to show the works and what the company contemplates doing.

Executive committees of the United Gas & Electric

Co., with George Bullock of New York, president, and the American Cities Company, at a meeting held in Birmingham today, announced that \$60,000 will be spent right away in the gas department in Birmingham. In regard to the Alabama Power Co., President Bullock announced positively that power from Lock 12 dam on the Coosa River would be taken by the Birmingham Railway, Light & Power Co., but the detail contract has not been drawn up. He also announced that bids will be called for at once for the modernizing of the gas plants in Birmingham. The specifications for the work on the gas producers and plant have been worked out by John Titzel, gas engineer of the United Gas & Electric Co. of New York.

**Railroad's Educational Work.**

An interesting feature, and a practical one, of the work of agricultural and industrial department of the St. Louis Southwestern Railroad Co., W. R. Beatie, commissioner, is the educational campaign it is carrying on for the purpose of molding public sentiment and inducing the people along its lines to adopt modern methods, both in production and in the handling of products. In this connection it is circulating freely among residents in its territory bulletins dealing with specific crops and farm problems, and among those already issued are "The Agricultural Development of the Southwest," "Canning Fruits and Vegetables on the Farm," "Peaches," "The Silo," "Strawberries," and "Peanuts," full of illustrations and definite information.

**Business Men and Farmers.**

At a recent meeting at Louisville, Ky., a committee of business men consisting of Watt T. Brown of Ragland, Ala., chairman; David R. Coker of Hartsville, S. C., and John Sprunt Hill of Durham, N. C., adopted resolutions urging Southern business men to place themselves upon a helpful co-operative basis with Southern agricultural interests, so as to maintain fair and satisfactory markets for the purchase of farm supplies and the sale of farm products, to promote the building of good roads and to further the work of all agencies for the improvement of social and economic conditions in rural communities.

**Paving to Cost \$20,000.**

An instance of the interest which the smaller Southern cities are manifesting in street improvements is recognized in the announcement that the Commissioners of Street Improvement District No. 1, Conway, Ark., have awarded contract for street paving to cost \$20,000. This paving is to be of concrete, laid in coarse six inches thick, F. U. Halter and R. B. McCulloch having the contract.

**Paving to Cost \$115,000.**

The city of Paragould, Ark., has awarded contract to L. W. Johnson, Memphis, Tenn., for paving to cost \$115,000, as follows: 14,200 square yards of brick in the business district; 20,840 square yards of bitulithic, 12,422 square yards of bitustone and 720 square yards of gravel in the residence district.

**Bids for 78 Miles of Road.**

Bexar county, V. H. Howard, auditor, San Antonio, Tex., will construct about 78 miles of gravel road and about 2700 cubic yards of concrete curvert work. Plans and specifications are now on file, bids to be received until May 16.

**A \$150,000 Street Paving Contract.**

A contract amounting to about \$150,000 for paving and improving 1st street, in Trinity Heights Summit, a suburb of Dallas, Tex., has been awarded to Seay, Cranfield & Co. J. M. Preston is city engineer of Dallas.

The Chamber of Commerce of Raleigh, N. C., has begun the publication of a monthly bulletin designed to further the work of the organization and to advance the material interests of the city.

**GOOD ROADS****WEEK'S HIGHWAY RECORD.****Progress in Southern Road and Street Improvement.**

[Further details of highway undertakings and bond issues mentioned below are given under the headings Construction Department and New Securities, published elsewhere in this issue.]

**Bonds Voted.**

Chestertown, Md.—City voted \$25,000 bonds for streets and sewers.

Donaldsonville, La.—Ascension Parish Police Jury authorized \$35,000 bonds to build roads.

Elizabethtown, N. C.—Carvers Creek county township voted \$10,000 bonds to construct roads.

West Palm Beach, Fla.—Palm Beach county issued \$45,000 bonds for road and bridge construction in District No. 2.

**Bonds to Be Voted.**

Beckley, W. Va.—Raleigh county votes June 9 on \$180,000 bonds to construct roads.

Charleston, W. Va.—City votes May 18 on \$300,000 bonds to construct 10 to 12 miles of streets.

Covington, La.—St. Tammany parish votes June 3 on \$180,000 bonds to construct 200 miles of roads.

Ennis, Tex.—City will vote on \$40,000 bonds to pave streets.

Fairfield, Tex.—Teague Road District of Freestone county votes May 20 on \$150,000 bonds to improve roads.

Franklin, Ky.—Simpson county votes May 2 on \$100,000 bonds to construct roads.

Gadsden, Ala.—City votes June 1 on \$100,000 bonds to pave streets.

Hugo, Okla.—Wilson township of Choctaw county will vote on \$30,000 bonds to construct roads.

Kinston, N. C.—City will vote on \$100,000 bonds for public improvements.

Manatee, Fla.—City votes May 26 on \$40,000 bonds to pave streets.

Somerset, Ky.—Pulaski county votes again June 26 on \$300,000 bonds to construct roads.

Winston-Salem, N. C.—City votes June 23 on \$50,000 bonds to improve streets.

**Contracts Awarded.**

Baltimore, Md.—State awarded \$152,964.05 contracts for road construction.

Baltimore, Md.—State awarded \$35,700 contract to construct 31½ miles of road.

Birmingham, Ala.—City awarded \$6386 paving contract.

Birmingham, Ala.—City awarded contract to grade, macadamize and construct combined curb, gutter and sidewalk paving on certain streets; estimated cost \$19,440; includes 24,100 cubic yards excavation, 3900 linear feet combined curb and gutter, etc.

Conway, Ark.—City awarded \$20,006.50 paving contract.

Dallas, Tex.—City awarded \$150,000 paving contract.

Lexington, Ky.—City awarded contract to construct four blocks; vitrified brick on concrete foundation.

Loudon, Tenn.—Loudon county awarded \$35,275.70 contract to construct road.

Louisville, Ky.—City awarded contracts for 34 sections of concrete sidewalk construction.

New Orleans, La.—State awarded \$39,700 contract to construct Bossier City-Benton highway.

Paragould, Ark.—City awarded contract for paving to cost \$115,000.

Raleigh, N. C.—City awarded contract for 120,000 square yards asphalt paving.

Shepherdsville, Ky.—Bullitt county received bids for 4½ miles of macadam road.

Shreveport, La.—Bossier Parish Police Jury awarded \$60,035.25 contracts for road extensions.

West Palm Beach, Fla.—City awarded \$3356 contract for street improvements.

**Contracts to Be Awarded.**

Bardstown, Ky.—Nelson county will construct 6½ miles of turnpike.

Birmingham, Ala.—City receives bids until May 5 to grade, macadamize, curb and construct gutters and sidewalk paving; estimated cost \$80,000.

Helena, Ark.—State receives bids until May 1 to construct six miles of concrete road; cost \$50,000.

Helena, Ark.—Phillips county receives bids until May 12 to construct six miles of concrete road.

Houston, Tex.—Harris county receives bids until May 11 to pave 3½ miles of road; also for 7000 cubic yards of road gravel for same.

Lebanon, Va.—Russell county received bids until April 27 for 22 miles of road improvements.

Jonesboro, Ark.—City receives bids until June 1 to construct 10,000 square yards of brick paving and 4000 linear feet of concrete curbing.

Lexington, Ky.—City will pave about six blocks with asphalt.

Lillington, N. C.—Lillington township will construct about 25 miles of sand-clay and gravel roads; \$15,000 available.

Logan, W. Va.—City receives bids until May 9 to construct 16,000 square yards brick paving with concrete base, 14,500 linear feet curb and gutter, etc.

Marietta, Okla.—City receives bids until May 4 to construct 20,000 square yards vitrified street paving.

Mineral Wells, Tex.—City receives bids until May 6 to construct 100,000 square yards street pavement and 22,000 linear feet curb and gutter.

Middlesboro, Ky.—City will expend \$100,000 for street work, macadam in residence section and probably bituminous in business district.

Moulton, Ala.—Lawrence county will expend \$6543.26 to construct macadam road.

Oneonta, Ala.—Blount county receives bids until May 15 to grade and drain three miles of road.

Orlando, Fla.—City will construct 138,000 square yards of brick paving.

San Antonio, Tex.—Bexar county receives bids until May 16 to construct 78 miles of roads.

Snyder, Tex.—Seurry county will construct 150 miles of graded dirt road; \$40,000 available.

### Kentucky Highway Improvements.

Among the more important road projects in Kentucky at present is consideration by Hopkins county of a \$250,000 bond issue for the purpose of macadamizing county roads which are already graded. The county-seat is Madisonville.

J. E. Carman, road engineer at Mayfield, Ky., for Graves county, is planning the improvement of the State road, including chiefly widening it at various points.

Guthrie Wilson, county engineer of Nelson county, with headquarters at Bardstown, received bids April 18 for the construction of 4½ miles of the Bullitt county pike, which is of macadam. Road commissioners of Nelson county, James Shehan, W. H. Duncan and John Flaherty, received bids at Bardstown April 18 for the construction of 6¾ miles of turnpike on the old Fairfield and Bardstown dirt road.

Lexington has let a contract to the Carey-Reed Construction Co. of that city for the construction of four blocks on Water street with vitrified brick, on a concrete foundation. The city of Lexington is also preparing to issue bonds for the construction of five blocks of Patterson street, the kind of construction not yet having been determined.

Middlesboro is planning to spend \$100,000 for street work, and is to macadamize most of the streets in the residence section, but a much better kind of construction will be used in the business district. L. F. Debusk, R. M. Barry and George H. Giderian are a committee of investigation, and will report to the council regarding the proper type of street after investigating conditions in Knoxville, Chattanooga and Memphis. Mayor Manning is heartily in favor of using high-grade material in the business section.

### For Richmond-Washington Highway.

Contract for constructing 32 miles of road for the Richmond-Washington Highway, through Fairfax county, Virginia, has been awarded at about \$100,000 by the Virginia State Highway Commissioner. Berkley & Smith of Richmond are the contractors. The construction of this highway is now progressing in all the Virginia counties involved except Henrico county, and its officials expect soon to complete arrangements with the city of Richmond for their portion of the roadway. Caroline, Fairfax, Hanover, Prince William, Spotsylvania and Stafford are the counties where work is in progress.

## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### Shelby to Casar, N. C.

The promoters of the plan to build a railroad 20 miles long from Shelby to Casar, N. C., via Fallston and Belwood, are continuing their work, and hope to start construction in either June or July, according to a letter from O. M. Mull of Shelby, who is taking a leading part in the effort to provide transportation facilities for northern portion of Orlando county. The route selected lies for 15 miles through nearly level country, but the other five miles varies from rolling to rough. Three bridges will be required, one of 200 feet and others of 100 feet each. Connections will be made at Shelby with both the Southern Railway and the Seaboard Air Line.

Two districts have voted \$40,000 each toward the construction of the proposed line, and another district will hold an election to vote on a similar issue in the first part of June. After that it is planned to obtain a charter and proceed with the work. It is desired to purchase sufficient first-class steel second-hand rails in good condition for relaying and weighing 60 pounds per yard; also locomotives, cars and other equipment, which may likewise be second-hand, provided it is in good condition for use.

### New Equipment, Etc.

Louisville & Nashville Railroad is to buy 1400 steel underframes for use in the construction of an equal number of cars in its shops at Louisville, Ky. A late report says that the Pressed Steel Car Co. and the Mt. Vernon Car & Manufacturing Co. will supply 700 each.

Southern Railway has awarded a contract for 1000 box cars to the American Car & Foundry Co. of St. Louis.

Illinois Central Railroad is reported in the market for 3000 freight cars.

Kansas City Southern Railroad is contemplating the purchase of 100 ballast cars.

Nashville, Chattanooga & St. Louis Railway has ordered 5 passenger train cars from the American Car & Foundry Co.

Texas & Pacific Railway has ordered 150 tons of bridge steel from the American Bridge Co.

San Antonio & Aransas Pass Railway will purchase 50 flat cars.

O. M. Mull, Shelby, N. C., and associates want prices on 20 miles of first-class relaying rails, 60 pounds per yard; also good second-hand locomotives and cars, etc., for proposed railroad.

Atchison, Topeka & Santa Fe Railway is reported to have inquiries out for several thousand cars.

Southern Railway has ordered 1100 tons of bridge steel from the Virginia Bridge and Iron Works, Roanoke, Va.

Washington Southern is reported to have ordered 2100 tons of bridge steel from the Phoenix Bridge Co., Phoenixville, Pa.

Seaboard Air Line has ordered 600 tons of bridge steel from the American Bridge Co., New York.

Wabash Railroad has ordered 2500 tons of rails from the Illinois Steel Co., Chicago.

Missouri, Kansas & Texas Railway is reported to have ordered 25 locomotives to be delivered in July, and will soon order cars.

### Shenandoah Valley Auto Line.

George W. Mitchell, secretary and treasurer of the Shenandoah Valley Transportation Co., 61 Greenbush street, Pittsburgh, Pa., says that it is now operating one Federal truck of 1½ tons, carrying a body of 20-passenger capacity on its route over the Valley turnpike between Winchester and Woodstock, Va., a distance of about 30 miles. It is expected to put on in the near future one or two more passenger machines, and at least one freight truck. Within a week or two a White truck of three tons, with a body of 30-passenger capacity, will be installed. The company will also purchase two more chassis, each of two tons capacity. The charter authorizes an issue of \$10,000 of capital stock,

but only \$5000 is now issued. It is expected to sell only enough shares to provide for present needs and to hold the rest in the treasury. W. G. Powell, Berger Building, Pittsburgh, is president of the company, others interested being F. P. Fair, D. C. Mitchell, C. C. Mitchell and J. E. Hansell, all of Pittsburgh excepting Mr. Hansell, who resides at Middletown, Va. Bids for equipment will be considered until July 1.

### Savannah & Northwestern Work.

The Savannah & Northwestern Railway Co., formerly the Brinson Railway, has expended more than \$285,000 during the last 10 or 12 months for reduction of grades, widening of cuts and fills, laying of heavier rail (70 pounds per yard) in place of 56 and 60-pound on about 11 miles of line, purchase of 100 flat cars, 50 box cars, 2 locomotives and other equipment, building side-tracks and water tanks. The new rail was placed between Elmore and St. Clair, and between Eureka Springs and Whitehall. At Mill Haven 35 and 40-pound rails were replaced with 56-pound rails. Extensive repairs were made to eight stations, while five new stations were built. Construction has begun upon a new coal chute at Newtonville. The funds for these improvements were part of the proceeds of \$1,250,000 of 6 per cent. two-year collateral trust convertible gold notes authorized August 1 last.

### San Jose—Kirk Interurban.

The San Antonio, San Jose & Medina Interurban Railway Co., capital \$100,000, has been incorporated in Texas to construct a line from San Jose, which is in Bexar county not far from San Antonio, to Kirk, on the Artesian Belt Railroad, a distance of about 15 miles. It is proposed to operate the line with gasoline motor cars for passengers, the motors to also haul trailers for the transportation of freight. Headquarters are at San Antonio, and the officers are A. D. Powers, president; C. A. Newton, secretary; A. J. Bell, general counsel, and L. S. Powers, managing director. The Texas Construction Co., in which J. G. Miller and others are interested, will make the survey.

### Improvements to Street Railways.

George Bullock, president of the United Gas & Electric Co., controlling, through the American Cities Co., electric railways and other public utilities in several cities in the South, is quoted in a report from Birmingham as saying that the executive committee, after a two days' meeting there, has arranged financing for betterments to properties in Little Rock, Ark., and Knoxville, Tenn.; also for the purchase of cars for railways in Little Rock, New Orleans and other places. R. J. Titel, gas engineer, was authorized to receive bids for improvements to the gas works at Birmingham.

### Petition to Sell a Railroad.

Legal proceedings have been instituted at New Orleans by the New York Trust Co., representing bondholders of the line, looking to a foreclosure of mortgage and sale of the New Orleans, Texas & Mexico Railroad, running from New Orleans to Houston and Brownsville, Tex. A hearing on the petition will be held on May 11. J. D. O'Keefe of New Orleans is the receiver.

### Levee Contract for \$1,194,087.

A contract for \$1,194,087 has been awarded for levee construction on the Mississippi River. It was awarded by the St. Francis Levee Board, Marion, Ark., to Roach, Stansell & Lowrance Bros. & Co. of Memphis, and calls for placing 4,248,900 cubic yards of earth. The firm also arranged to purchase the remainder of the \$1,500,000 bond issue recently authorized. Its contract involves enlargement and banquette work between Pecan Point and Walnut Bend. It is probable that the contractor will sublet a considerable portion of the work. Men, wagons and mules will be the principal requirements for the construction involved, no machinery to be used except possibly an elevating grader.

## TEXTILES

### National Yarn Mills.

National Yarn Mills, Belmont, N. C., has been incorporated with \$125,000 authorized capital by R. L. Stowe, S. P. Stowe and A. C. Lincolner of Belmont, D. E. Rhyne of Lincolnton, N. C., and J. A. Rhyne of Mt. Holly, N. C.

This company intends to install about 10,000 spindles, with accompanying equipment, for manufacturing combed peeler yarns, and its plant will cost about \$200,000. No plans have been drawn or contracts let. The incorporators are all experienced cotton manufacturers.

### To Add 5280 Spindles.

Selma Cotton Mills, Selma, N. C., mentioned last week as to install equipment costing about \$75,000 and to increase capacity, will add 5280 spindles balanced on 22s hosiery yarn. It is considering the adoption of the electric drive, and if it decides to do this will be in the market for motors to equip the plant throughout.

### A \$250,000 Capital Increase.

Brandon Mills, Greenville, S. C., will increase capital stock from \$1,500,000 to \$1,750,000. This company has 86,016 ring spindles, 2100 broad looms, 140 cards, etc., employing 700 operatives on the production of converters' cloth, sateens and sheetings. This increase of capital will be in preferred stock and is for financial purposes.

### Memphis Cotton Manufacturing Co.

Memphis Cotton Manufacturing Co., John P. Bullington, treasurer, Central Bank Building, Memphis, Tenn., is planning to engage an engineer to advise regarding construction of plant and possibly construct and operate it. It intends to bleach linters and manufacture cellulose. The organization of the company was previously announced.

### Textile Notes.

Tucapau Mills, Tucapau, S. C., will hold a meeting on May 12 to consider increasing capital stock from \$300,000 to \$600,000. This company has 63,744 ring spindles, 1796 narrow looms, 108 cards, etc.

E. V. Benjamin of New Orleans has purchased the Maginnis Cotton Mills of that city, and will at once arrange for operating the plant, which has been idle several years. This mill requires about 1500 operatives for full operation.

Hoboken Ribbon Co., New York, has obtained control of Maginnis Silk Co., South Richmond, Va., the plant having been idle several weeks. The new management will have the mill in operation within 10 days, the machinery including 48 looms and finishing equipment driven by electric power.

## MECHANICAL

Illustrations and descriptions having news value pertaining to developments in machinery, mechanical devices and inventions will be considered for use in this department.

### New Types of Screw Anchors and Shields.

The two types of one-piece composition screw anchors and two-piece malleable iron shields shown in the accompanying illustrations have been placed on the market by the United States Expansion Bolt Co., 48



TWO-PART MALLEABLE IRON SCREW SHIELD.

Dey street, New York, with branches in Boston and Chicago. The smaller illustration shows the composition one-piece improved screw anchor. The yielding to the expansive effect of the screw is permitted by the composition of the metal. In the larger malleable iron shield the construction in two parts permits the expansion as the screw is driven.

These screw anchors are made for use in brick, stone,

## MANUFACTURERS RECORD.

concrete and other masonry. They are designed for simplicity in construction, quick and easy application and strong holding power.



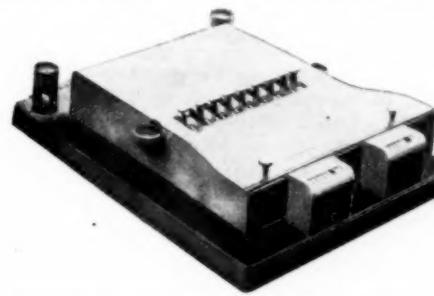
ONE-PIECE COMPOSITION SCREW ANCHOR.

The company is extending its field of operations and plans to open branch offices in the more important distributing points throughout the country.

### Typewriter Calculating Attachment.

The mechanical adding and subtracting device which is designed to form the pedestal for any regular typewriter, as shown in the two accompanying illustrations, has been brought to its present stage of successful application after four years of experiment and testing.

The smaller illustration shows the device and the larger one shows the typewriter connected up so that additions and subtractions are made automatically and the results shown on the index of the attachment by



PEDESTAL FOR CALCULATING TYPEWRITER.

means of which typewriting and the attendant calculations may be made in one operation.

The ordinary typewriter when in place on the calculating attachment is made ready for use by pressing the knob on the pedestal. The small keys across the middle of the pedestal are operated by the type bars of the numerals on the typewriter.

When a numeral key is struck, the corresponding key on the calculator is deflected and the corresponding figure is brought to the face of the accumulator. Any row of numbers printed by the typewriter will show on the accumulator. Then when a second row of figures is written the accumulator shows the total, and each additional row of figures changes the accumulator, so that it shows the final total. When the typewriter operator writes the total on the typewriter, the accumulator automatically clears itself. When subtraction



ORDINARY TYPEWRITER WITH CALCULATING ATTACHMENT.

is necessary the operator, by pressing the proper key and writing in the amount to be subtracted, causes the accumulator to show the net remainder, and by writing that remainder on the machine the accumulator clears itself.

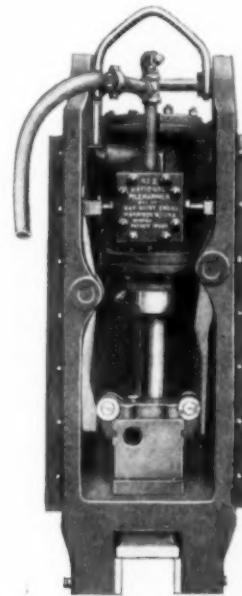
An electric motor is provided for rotating the gear wheels in the machine, which produce the results on the accumulator.

This calculating equipment has been developed and

is manufactured by the Typewriter Calculating Attachment Co., New Bank of Commerce Building, St. Louis, Mo. It is patented in the United States and foreign countries.

### New Patented Pile Hammer.

The National pile hammer, recently developed, is the result of years of experience with steam hammers and manufactured by the National Hoisting Engine Co., Harrison, N. J., is shown in the illustration. It is a double-acting steam or air hammer, suitable for driving concrete or wood piles, and steel sheeting. It is made in five sizes, from 800 to 8000 pounds. It is simple in design, there being only four moving parts, and these parts are made for great durability, insuring maximum service at a minimum upkeep cost. The frame is of

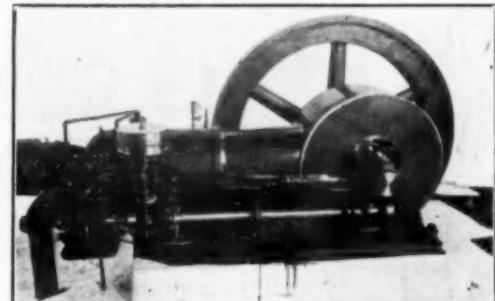


THE NATIONAL PILE HAMMER.

cast iron, and open in the front, so that all moving parts are accessible. The cylinder is securely bolted to the frame with eight turned bolts. The piston and piston rod are one forging, made of steel, with the proper proportions to withstand the shocks and vibrations caused by the repeated impact of the blows. The ram is made of open-hearth steel, and machined to fit piston rod. Several types of bases are made to fit around piles where they may be necessary. Among the features of the National hammer is its great driving power. It can be used with or without leads, or hung from a derrick, or used with a gin pole. Sizes, capacities and other data are given in the illustrated catalogue issued by the company.

### Improved Type of Covington Oil Engine.

A number of improvements that have been added to the standard type "A" 50-horse-power Covington oil engine are shown in the accompanying illustration of this



COVINGTON TYPE "A" 50 H. P. OIL ENGINE.

engine. As will be noted, all the bearings are of large size, and the construction of the engine is rigid and built for severe service. The amount of cooling water required is kept at a minimum by the design and construction.

The automatic oiling of the bearings is accomplished by the improved type "Detroit" forced feed, manufactured by the Detroit (Mich.) Lubricator

Co. This is a mechanical oiler, which automatically delivers the lubricating oil to every bearing on the engine. When the engine is stopped the flow of the oil also stops, thus effecting a saving in the quantity of oil required.

The outboard bearing is ring oiling, with a renewable phosphor-bronze bushing. The cam and lay shaft bearings are similarly fitted.

The improved governor gives a regulation from no load to  $1\frac{1}{4}$  loads of less than 2 per cent. It is fitted with a recoil clutch, which absorbs the shock caused by the explosion in the engine. This takes a considerable amount of strain off of the governor.

The improved piston is fitted with six rings and an oil groove, instead of four rings. It is made with a convex head instead of concave, which centralizes the explosion and reduces the side strains in the cylinder. The piston is also fitted with an improved taper wristpin, which is easy to adjust for taking up wear. The improved spray atomizes the oil and delivers it into the vaporizer in such condition that combustion is complete. It is stated that no carbon is left in the vaporizer or vaporizer cap when using 34-degree distillate fuel oil.

The amount of cooling water required for the 50-horse-power engine is about 130 gallons per hour at full load.

#### Electric Towing Locomotives.

The electric towing locomotives for hauling vessels through the locks of the Panama Canal are now being installed on the Isthmus, 40 in all being required for the service. They are being supplied by the General Electric Co., Schenectady, N. Y., builder of the locomotives. They weigh \$2,500 pounds; measure 32 feet  $2\frac{1}{2}$  inches long by 8 feet wide by 9 feet 3 inches greatest height over the cabs; have an available tractive effort as high as 47,500 pounds and a windlass rope pull of 25,000 pounds. Four of them, two on each side, will ordinarily draw steamships through the locks, but sometimes six engines may be needed to handle extra large vessels. The two astern, acting as a control on the ship's movements, will aid in giving direction to her course. Vessels will not be allowed to enter the locks and go through on their own power.

The locomotive is built up of cast steel side and end frames, crossties and bedplates. It is mounted on two axles, with wheels in accordance with M. C. B. standards. The entire frame is supported from journal boxes of the regular railway type by means of coiled springs. The sides and top of the body are enclosed by removable sheet-iron covers. Enclosed cabs are built

gear mechanism in connection with a lever in each cab similar to a steam locomotive.

The locomotive is driven by two 75-horse-power totally enclosed motors of the mill type, one being direct connected through reduction gearing to each axle. Three-phase 25-cycle 220-volt current is used. The motor and traction gearing is mounted on a common baseplate, which, in turn, is mounted on a driving axle and spring suspended to the locomotive frame the same as in regular railway practice.

In the center of the locomotive is located a vertical windlass, with drum, the capacity of which is 800 feet of one-inch steel hawser cable. The windlass, with its driving motors and gearing, is mounted on a solid baseplate, and is likewise independent of the movement of the locomotive frame. The cable drum extends above the locomotive cover, and has a floating guard placed around it to retain the cable while coiling loose.

The traction motors, as well as the windlass motors, are controlled from either cab, so that the control equipment is duplicated. The two traction motors are operated by one master controller and contractors forward and reverse, and the windlass motors are operated by a reversible drum controller, and the clutch on the main vertical shaft by a solenoid.

#### Fulton Diesel Type Oil Engine.

During the past year the Fulton Manufacturing Co. of Erie, Pa., has put on the market a 50-horse-power oil engine operating on the Diesel principle. It is a four-cycle engine, and has three cylinders, eight-inch bore, nine-inch stroke, and running at 400 R. P. M. develops 50 brake horse-power.

The general arrangement is shown in the illustration, with the control wheel and starting handle at the left, the force feed oiler for cylinder lubrication between the first two cylinders, the air compressor at the extreme right, the battery of pumps for water, fuel, crank case lubrication and bilge mounted on the compressor end of the crank case.

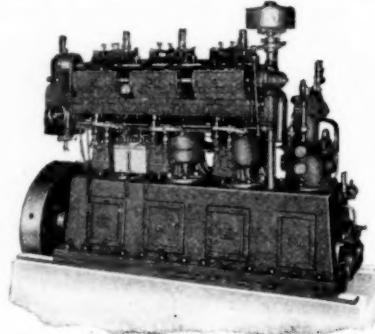
The parts are so arranged that each individual cylinder or head may be removed without disturbing the cam shaft, which is mounted on a continuous support bolted to lugs cast on the cylinders. The cam shaft is driven from the crankshaft by an intermediate vertical shaft having helical worm gears. The gear end of the cam shaft and the vertical shaft are supplied with ball bearings in oil bath, as made by the Hess-Bright Manufacturing Co., Philadelphia, Pa.

The two-stage air compressor works as follows: Free air is drawn into the lower cylinder through the

pressure of from 800 to 1000 pounds, depending on the load, i. e., for half load 800 pounds, full load 975 pounds and for 10 per cent. overload about 1000 pounds per square inch.

Air in the starting receivers is carried at from 700 pounds to 1000 pounds per square inch. The engine may be started from three to four times on a single bottle, but a second starting bottle is provided for emergencies.

Referring to the duplex valve for the low-pressure cylinder, during the suction stroke air enters through the slotted strainer, forcing the suction valve from its



THE 50 H. P. FULTON DIESEL ENGINE.

seat. On the compression stroke this valve closes and the delivery valve is forced open, allowing the air to enter the cooling coil. This arrangement is unique, not only in that the strainer, suction and delivery valves are combined, but the air drawn through the delivery valve has a beneficial effect, cooling the parts to prevent overheating.

The air-valve pocket, as well as the cooling coil, is surrounded by water. The coil may be inspected without breaking any of the pipe connections or without dismantling any part of the engine except to remove the cover. Both the suction and delivery valves in the high-pressure head are supplied with renewable seats, and can be inspected without disturbing the pipe connections.

Fuel oil is delivered to the fuel chamber around the needle valve by the fuel pump, where it is broken up by passing through a series of perforated discs. Air from the high-pressure receiver fills the space in the injector body. When the needle valve is raised the fuel charge is blown into the compression space of the working cylinder, where it is ignited by the heat of compression. The parts are so proportioned that the fuel injector can be removed in two sections without dismantling the operating lever.

The speed of the engine depends upon the amount of fuel delivered to the working cylinders, and graduation is accomplished by the regulation of the control valves, the timing of which is regulated by the governor.

The governor is fully enclosed, having outside adjustment for the spring tension. It is mounted on the vertical shaft between the crank case and the gear housing; the exposed parts are stationary, and as the cover is detachable, the engine may be run with all the working parts of the governor exposed, if desired.

Forced lubrication is supplied to all crankshaft bearings and wristpins. The crankshaft is drilled through its entire length and a small self-priming rotary pump circulates the oil from the engine-bed to all bearings located inside the crank case, and up through the hollow connecting rod to the wristpin. A greater quantity of oil than is actually needed for lubrication is supplied, thus cooling the bearings and with no waste, as the oil flows back to the crank chamber, where it is filtered and so used over and over again. The entire oiling arrangement is automatic in starting and stopping with the engine, and so eliminates the chance of forgetting to open or close an oiling device at the proper time.

The company guarantees a fuel consumption of .55 pound of fuel oil per horse-power per hour. The engine is now installed in the maker's factory at Erie, Pa., to furnish power for running the plant. Other sizes made by the company are the 70 and 100 horse-power engines. They are all described in the pamphlet issued by the company.

#### A \$300,000 Seed and Fertilizer Company.

With a capital stock of \$300,000 and privilege of increasing to \$1,000,000, the Cotton States Seed & Fertilizer Co. of Macon, Ga., has been incorporated by Joel Hurt, W. M. Hutchinson and G. C. Stevens of Atlanta.



ELECTRIC TOWING LOCOMOTIVES FOR PANAMA CANAL LOCKS.

at each end, so that the locomotive may be operated from either end.

The locomotive is propelled by means of a rack rail while towing and while going up or down the steep grades from one level to another at a speed of two miles per hour. While running idle or on return tracks the speed is changed to five miles per hour, and the machine is propelled by the regular traction method, the rack pinion being entirely released. This change is effected by manually-operated clutches located in the

strainer and duplex suction and delivery valve, and is compressed to about 120 pounds per square inch, and delivered to the intercooler, which is the coil at the right, to the suction valve in the cylinder head, where it is drawn into the high-stage cylinder and delivered through the high-pressure delivery valve to another cooler, then stored in the receivers. The compressor delivers slightly more air than is used for fuel injection, and this surplus is carried in the two larger receivers for starting. The air for fuel injection is held at a

# Construction Department

## IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

### HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

### WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

**In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.**

### DAILY BULLETIN

**The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year.**

All advertising contracts in the Manufacturers Record for three months or longer include a subscription to the Daily Bulletin for the contract period, as well as a subscription to the Manufacturers Record.

### BRIDGES, CULVERTS, VIADUCTS

Ala., Hamilton.—Marion County will construct \$8000 bridge; two 90-ft. and one 160-ft. steel spans; open bids May 16; Engr., S. E. Nell, Hamilton. (See Machinery Wanted.)

Ark., Newport.—Board of Improvement, Bridge Improvement Dist. No. 1, will construct reinforced concrete bridge, 40 ft. wide, 12 ft. span, and earth-fill approaches thereto containing about 40,000 cu. yds. of earth; bids until May 21; Wm. J. Parks, Civil Engr., Citizens' Bank Bldg., Pine Bluff, Ark. (See Machinery Wanted.)

Fla., West Palm Beach.—Palm Beach County issued \$45,000 bonds for bridge and road construction in Dist. No. 2. Address County Commsr.

Ky., Fulton.—Illinois Central R. R., A. S. Baldwin, Ch. Engr., Chicago, Ill., will construct plate-girder bridges 60, 80 and 108 ft. long.

Miss., Meridian.—C. M. Card, Archt., City Hill, has plans for bridge 740 ft. long, 40 ft. wide, of reinforced concrete; cost \$75,000; plans presented to consideration of several railroads. (Plans lately noted.)

Mo., St. Louis.—City will remove certain portions of present Jefferson Ave. bridge and construct reinforced concrete viaduct on Jefferson Ave. to Chouteau Ave.; bids until May 8; plans and specifications at office Board of Public Improvements and Street Commr. (See Machinery Wanted.)

N. C., Coinjock.—Col. E. E. Winslow, U. S. Engr. Office, Norfolk, Va., recommends replacing drawbridge with reinforced concrete and steel structures. (See Va., Norfolk.)

N. C., Wentworth.—Rockingham County Commsr. let contract at \$14,890 to Vincennes Bridge Co., Vincennes, Ind., to construct bridge across Dan River near Draper, N. C.; bridge designed and will be constructed under supervision of J. N. Ambler, Winston-Salem, N. C. (Lately noted.)

Tenn., Nashville.—Cleveland Street Bridge Com., H. E. Howse, Chrmn., invites bids until May 12 to construct Cleveland St. viaduct; reinforced concrete; about 600 ft. long and 40 ft. wide; built by city, Davidson county and Louisville & Nashville R. R.; lately further described, cost at \$40,000; Freedland-Klyce Engr. Co., Engr., Nashville. (See Machinery Wanted.)

Tex., Columbus.—Colorado County Commissioners let contracts for 3 steel bridges across Colorado River to replace structures damaged by flood in December: Trinity Bridge Co., at \$395, to construct additional span of 160 ft. at east bridge; Missouri Bridge & Iron Co., Fullerton Bldg., St. Louis, Mo., at \$17,200, to add 3 spans of 180 ft. each to 2 remaining spans of north bridge; Austin Bros., Dallas, Tex., at \$7800, to rebuild Altair bridge, placing 1 span, 217 ft. long; 352 ft. wooden trestle, 500 ft. earth fill and small trestle east of structure.

Tex., Dallas.—Dallas County will expend \$25,000 to construct bridge; swing span with timber approaches, span 212 ft. and wedges; date of opening bids not set; J. F. Witt, Engr.; (County Engr. lately noted as preparing plans for 2 bridges across Trinity River.)

Tex., Freeport.—Brazoria county asks bids at office J. W. Munson, County Judge, Angleton, Tex., until May 11 for construction of steel and concrete bridge across Brazos River between Velasco and Freeport; previously noted to be constructed jointly by Brazoria county and Houston & Brazos Valley R. R. Co., operated by Missouri, Kansas & Texas R. R. Co., C. A. Thanheiser, Engr. (See Machinery Wanted.)

Tex., Dallas.—Dallas county, Chas. E. Gross, County Auditor, will grade and bridge Willingham Rd. from Dallas-Fort Worth Rd. in a southerly direction to and across White House Lake, distance of 2½ mi.; bids until Apr. 27; plans and specifications at office County Engineer.

Tex., Houston.—Harris County, H. L. Washburn, Auditor, will construct creosoted bridge over slough near Cypress Creek on Westfield road; bids until May 11; plans and specifications on file with County Engrs. (See Machinery Wanted.)

Tex., Live Oak County.—Commsr.'s Court let contract to Alamo Construction Co., San Antonio, Tex., for 3 bridges; one each over Frio River, Sulphur Creek and Weedy Creek; cost \$11,400.

Tex., Luling.—Caldwell and Guadalupe County Commsr. let contract Hess & Skinner, Dallas, at \$12,440 to construct steel bridge across San Marcos River. (Lately noted.)

Tex., Oakville.—Commsr.'s Court, Live Oak county, let contract Midland Bridge Co., Kan-

sas City, Mo., to erect one span and approaches across Nueces River; cost \$9000. (Bids lately noted.)

Va., Norfolk.—Col. E. E. Winslow, U. S. Engr. Office, Norfolk, recommends replacing drawbridges over Albemarle and Chesapeake Canal at Great Bridge, North Landing, Va., and Coinjock, N. C., with reinforced concrete and steel structures; draws to be 80 ft. in the clear; type lift; McLean Contracting Co., 1411 Fidelity Bldg., Baltimore, Md., is lowest bidder at \$76,000; contract will be let from Washington.

Va., Richmond.—City will construct steel girder and T-beam viaduct across James River at 9th St. to replace part of present old bridge at this site; bids until May 5; Chas. E. Bolling, City Engr.; lately noted. (See Machinery Wanted.)

Va., Waynesboro.—State Highway Com., G. P. Coleman, Commr., Richmond, Va., and Augusta County, C. L. Scott, Highway Engr., will construct 2-span bridge across South River—one 80-ft. and one 81-ft. 8 in.; 3 bridges over South River near Stuart's Draft—one 37 ft. and two 18 ft. long; 2-span bridge across South River near Whistler's Mill, 80 ft. each; 12 and 15-ft. roadway; bids until May 8. (See Machinery Wanted.)

Va., Charleston.—Kanawha County, F. G. Burdett, County Road Engr., will construct highway bridge across Poca River near Monk Forde; bids until May 9. (See Machinery Wanted.)

Va., Eustis.—Eustis Canning & Preserving Co., E. J. Caldwell, Prest., secured building and will equip to mfr. marmalades and jellies from citrus fruits, can tomatoes, etc. (Lately noted Incptd. with \$10,000 capital stock.)

Va., New Orleans.—Timbalier Bay Packing Co., capital stock \$10,000, Incptd.

Va., Norfolk.—Thomas Roberts & Co. of Philadelphia and New York leased plant formerly occupied by Arctic Ice Co. in Brambleton section and will operate as canning and preserving plant.

### CLAYWORKING PLANTS

Mo., Knobnoster—Bricks.—Knobnoster Brick, Tile, Light & Power Co., capital stock \$40,000, Incptd. by C. A. Harrison, Chas. D. Littleton and J. B. Quinlan.

Mo., Liberal—Bricks.—Interstate Brick Co., capital stock \$25,000, Incptd. by S. C. Mellor, C. P. J. Bryant and G. C. Stephens.

Tex., Dallas—Bricks.—Brown Brick Co. organized; E. D. Brown, Prest.; Octavia Brown, V.-P.; G. C. Brown, Secy., Treas. and Mgr.; purchased machinery; daily capacity 100,000 soft-mud bricks. (Lately noted Incptd., capital stock \$5000.)

Va., Richmond.—Wellington Brick Co., capital \$15,000, Incptd.; J. Lee Davis, Prest.; Wellington Blunt, Secy.

### COAL MINES AND COKE OVENS

Ky., Pittsburgh.—Henderson Standard Coal Co., capital stock \$20,000, Incptd. by E. McClinton, Eailave T. Tharp, Jr., W. Smith and others, all of Pittsburgh, Pa.

Ky., Hazard.—East Tennessee Coal Co. (general office, Knoxville, Tenn.) leased 1600 acre coal land 3 mi. from Hazard and will develop.

Ky., Richardson.—T. J. Phillips Coal Co., lately noted Incptd. and as purchasing 2300 (exact amount 2340) acres for development, organized; T. J. Phillips, Prest.-Mrg.; L. R. Swain, Secy.-Treas.

Okla., Dewar.—Electric Coal Co., capital stock \$5000, Incptd. by J. T. Buckner, Ora Buckner and A. R. Thomas.

Tenn., Knoxville.—Royal Consolidated Coal Co. chartered; H. S. Pless, Prest.; Geo. P. Chandler, V.-P.; L. M. G. Baker, Secy.; consolidates Minersville Coal Co., Tennessee Coal Co. and Royal Coal & Coke Co. (Lately noted.)

Tenn., Nashville.—Dixie Fuel Co., capital \$10,000, Incptd.; will handle output of several mines on Louisville & Nashville and Illinois Central R. R. in Kentucky and Tennessee Central R. R. in Tennessee; J. W. Lam, Prest.; E. S. Randall, V.-P.; A. C. Lackey, Gen. Mgr.

Va., Fairmont.—Delmar Coal Co. Incptd. by R. A. Courtney and C. D. Robinson of

Fairmont and A. Hood Phillips of Grafton, W. Va.

W. Va., Huntington.—Ellington Co., capital stock \$25,000, Incptd. by G. D. Miller, S. J. Hyman, J. K. Oney, W. H. Cunningham and others.

### CONCRETE AND CEMENT PLANTS

Miss., Greenville—Concrete Products, etc.—Delta Cement Tile Co. (lately noted Incptd., capital \$50,000), J. P. Gooch, Jr., Mgr., will manufacture concrete products and monolithic construction.

Tex., San Angelo—Cement Silos.—West Texas Lumber Co. will install machinery to mfr. interlocking cement stave silos; machinery ordered.

### COTTON COMPRESSES AND GINS

Ark., Pine Bluff.—St. Louis Cotton Compress Co. filed deed of trust to secure \$300,000 bond issue to improve various plants, including local plant.

Ark., Pine Bluff.—Pine Bluff Cotton Compress & Warehouse Co. plans to expend \$75,000 for improvements to include additional platforms, firewalls, etc.; provide facilities to handle 150,000 bales next year.

Ga., Lafayette.—Planters' Gin Co., Summerville, Ga., purchased machinery for lately-noted plant; building and machinery cost about \$11,000; Mercer Reynolds, Prest.; John D. Taylor, V.-P.; A. B. Rainey, Secy.-Treas.

Ga., West Point.—Farmers' Product Co., capital \$50,000, organized to establish cotton gin, etc. (See Fertilizer Plants.)

Tex., Culpeka, R. F. D. from McKinney.—Culpeka Gin Co. will erect gin; purchased machinery.

Tex., East Bernard.—J. G. Leveridge will double capacity of cotton gin.

Tex., Princeton.—Farmers & Merchants' Co-Operative Gin Co. organized; build cotton gin; main building to be covered with sheet iron.

Tex., Tavener.—J. G. Leveridge, East Bernard, Tex., will erect cotton gin.

Tex., Trenton.—G. W. Hill will rebuild cotton gin previously reported burned; equipment includes engine, boiler and four 80-saw gin stands.

### COTTONSEED-OIL MILLS

N. C., Raleigh.—Raleigh Cotton Oil Co. purchased 5 acres land; Gallivan Building Co., Contr., Atlanta, Ga., will erect building for 4-press mill. (Raleigh Co. lately noted Incptd., capital stock \$100,000, by G. H. Andrews and others, and machinery ordered.)

Okla., Ada.—Ada Cotton Oil Mill, C. E. Wingo, Mgr., will erect, under company's supervision, 2-story 48x90-ft. brick building, with 40x82-ft. annex for storage-room; placed machinery orders.

S. C., Camden.—Southern Cotton Oil Co. will rebuild linter-room and other portions of plant burned at estimated loss \$15,000.

Tex., Alto.—Alto Cotton Oil Co. organized; H. H. Berryman, Prest.; H. E. Keys, V.-P.; M. J. Hogan, Secy.-Treas.; W. S. Wright, Mgr.; erect buildings, cost about \$5000; R. Puqua, Contr.; machinery purchased. (Lately noted Incptd., capital stock \$25,000.)

Tex., Houston.—Magnolia Cotton Oil Co. increased capital stock from \$200,000 to \$400,000.

Tex., Taylor.—Planters' Oil Co., Luther Smith, Mgr., Hearne, Tex., let contract N. C. Jenison of Houston to build 100-ton cottonseed-oil mill costing \$100,000; main building 70x136 ft., with 2 seed-storage rooms 78x200 ft.; L. C. Smith of Hearne, Mgr. (Lately noted.)

### DRAINAGE SYSTEMS

Ark., Earle.—Tri-County Drainage Dist. organized to reclaim and develop 60,000 acres; plans about 110 ml. canals; H. F. Avery and others, Commsr.; W. C. Ayers, Engr., Memphis, Tenn.

La., New Orleans.—City will construct lined and covered drainage canals, Contract Nos. 65 and 66-D; install 15-ton hand-operated crane, Contract No. 62-D, and underground conduits, Contract No. 63-D; bids until June 17 at office of Sewerage and Water Board, F. S. Shields, Secy., 568 City Hall Annex. (See Machinery Wanted.)

Miss., Yazoo City.—Atchafalaya Drainage and Levee Dist. will construct two dams or

levees, and two drainage canals about 8 mi. long, 14-ft. bottom width, side slopes 1 to 1; estimated cost \$50,000; dipper dredges to be used in canal construction; about 200,000 cu. yds. excavation, and 10 mi. bayous to be cleaned; contract probably let in July; Lamar Fontaine & Sons, Engrs., Lyon, Miss. (Lately noted as comprising 50,000 acres; J. H. Redd, L. C. Hutchins and W. E. Campbell, Commissioners).

S. C., Orangeburg.—Pettus Branch Drainage Dist. opens bids about June 1 for lately-noted canal extension; about 2½ mi. canal, 6 ft. wide, 2½ ft. deep; bids at same time for Rum Neck Drainage Dist. work, about 3½ mi. main canal; cost \$1250 to \$2000; both districts in Holly Hill township. Address Dr. S. Percival Wells, Holly Hill, S. C. (See Machinery Wanted.)

### ELECTRIC PLANTS

Ala., Bay Minette.—Town is reported contemplating installing electric-light and water system. Address Town Clerk.

Ala., Leeds.—City granted franchise to W. M. Hood and others to construct electric-light system.

Ala., Ozark.—City engaged J. B. McCrary Co., Atlanta, Ga., to make plans and specifications for water-works improvements; lately noted issued \$25,000 bonds for water and light plant; B. C. Dowling, Supt. (See Water-Works.)

Ark., Huntington.—Coal & Gas Belt Electric Co., G. W. Skow, Gen. Mgr., contemplates installing 350 K. W. turbine, 350 H. P. water-tube boiler and 10-ton ice tank.

Ark., Lake City.—Lake City Commercial Club, John W. Scobey, Secy., interested to locate electric-light plant.

Fla., Apopka.—Town is reported to vote on bonds for electric-light plant. Address Town Clerk.

Fla., Leesburg.—Leesburg Ice Co., J. Y. Clark, Prest., let contract for lately-noted additional equipment.

Fla., Micahany.—City let contract to J. B. McCrary Co., Atlanta, Ga., to install electric-light plant. (Lately noted.)

Ga., Brunswick.—Mutual Light & Water Co. contemplates erecting 500 K. W. generating plant, 2300 volts, 60 cycles; J. M. Armstrong, Supt. (Lately noted.)

Ga., Canton.—City votes May 23 on bonds to enlarge electric-light plant and water-works. Address The Mayor.

Ga., Chatsworth.—City contemplates constructing electric-light plant. Address The Mayor.

Ga., Mansfield.—City voted \$5000 bonds for electric lights. Address The Mayor. (Lately noted.)

Ky., Hodgenville.—Hodgenville Lighting Co. (C. L. Herren) will operate lately-noted plant; established; steam engine, dynamo, etc., cost \$6000.

Ky., Taylorsville.—M. F. Cheek contemplates enlarging electric plant. (See Motors and Garages.)

Md., Mt. Ranier.—City voted \$25,000 bonds for electric-light plant. Address The Mayor.

Mo., Clarksville.—City voted to construct electric light plant and water works. Address the Mayor.

Mo., Gilman City.—City Council engaged E. B. Murray and L. C. Hamilton, Associate Engrs., Missouri Savings Bank Bldg., Kansas City, to prepare plans for electric light plant; cost about \$8000; contracts reported to be let about May 1.

Mo., Hayti.—Hayti Light Co., A. B. Cortright, Gen. Mgr., will install additional generating unit in power plant. (Lately noted Incptd. with \$10,000 capital stock.)

Mo., Hunnewell.—City voted \$3000 bonds to construct electric light system. Address the Mayor.

Mo., Knobnoster.—Knobnoster Brick, Tile, Light & Power Co., capital stock \$40,000, incorporated by C. A. Harrison, Chas. D. Littleton and J. B. Quinlan.

Mo., Sullivan.—Electric Light & Power Co., capital stock \$25,000, Incptd. by Richard Zinkmann, E. W. Illien and W. E. Anderson.

N. C., Rowland.—City let contract for electric-light plant; J. B. McCrary Co., Engr., Atlanta, Ga. (Bids previously noted.)

N. C., Winston-Salem.—City votes June 23 on \$250,000 bonds for electric-light plant. O. B. Eaton, Mayor.

Ola., Tulsa.—Drumright Ice & Light Co., capital \$30,000, Incptd. by Chas. W. Shobe, Chas. F. Petty and Orville Knight of Klefer, Okla.

S. C., Allendale.—City voted \$65,000 bonds to construct electric light, water and sewer

systems. E. H. Oswald and others Comm. in charge.

S. C., Charleston.—Charleston Consolidated Ry., Gas & Electric Co. increased capital stock from \$3,000,000 to \$3,500,000.

Tenn., Memphis.—Illinois Central R. R., A. S. Baldwin, Ch. Engr., Chicago, Ill., will erect power-house; 1-story and basement; brick; 37x76 ft.; cost, \$15,000; Geo. R. Swift & Co., Contrs., Memphis.

Tenn., Sequatchie.—South Pittsburg Light & Power Co., South Pittsburg, Tenn., purchased electric-light plant of Bridgeport Realty & Traction Co.; obtain electricity from transmission system (hydro-electric plant at Hales Bar, near Chattanooga) of Chattanooga & Tennessee River Power Co., Chattanooga.

Tex., Dallas.—Northern Texas Utilities Co. consolidates properties of Hiram Grosman & Co.; will operate electric-light and power plants, gas works, ice factories and water systems in North Texas counties; Prest., Hiram Grosman; Secy.-Treas., W. C. Woodlief; preparing plans for new construction. (Lately noted Incptd. with \$500,000 capital, etc.)

Tex., El Paso.—Stone-Webster Engineering Corp., Trust Bldg., El Paso (main office, 147 Milk St., Boston, Mass.), will erect addition to power plant of El Paso Electric Ry. Co.; cost \$20,500. (Latter company lately noted to increase capital stock by \$1,000,000 and to install 4000 K. W. turbo-generator with condenser and switchboard and 2600 H. P. boilers.)

Tex., Naples.—Seven Cities Co. of St. Louis, Mo., will install electric-light and ice plants and extend transmission lines to Omaha and New Boston, Tex.; also reported as planning to build hydro-electric plant in Russellville, Arkansas.

Va., Alexandria.—Alexandria County Electric Lighting Co., 405 Hibbs Bldg., Wash-

### PROPOSAL ADVERTISEMENTS

IN THIS ISSUE

### PUBLISHED ON PAGES 76, 77, 78

In order to secure best bids from leading engineers, contractors and investment houses, the proposal advertising columns of the Manufacturers Record are invaluable.

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Proposal Advertising must reach us not later than 9 A. M. Wednesday for publication in issue of that week.

ton, D. C., will make lately-noted improvements, including rebuilding and enlarging present power plant building; fireproof, steel frame and brick, reinforced concrete roof, steel windows and doors; bids already received; upon completion of building will receive bids on additional 1000 K. W. steam turbine unit with condensers; plans prepared; construction supervised by Francis R. Weller, Consult. Engr., Hibbs Bldg., Washington. (See Machinery Wanted.)

W. Va., Grafton.—Grafton Gas & Electric Light Co. and Grafton Traction Co. will consolidate as Grafton Light & Power Co.

W. Va., Wheeling.—Government will build fireproof power-house and install machinery at each of dams Nos. 15 and 20, Ohio River; bids until May 13; J. P. Jersey, Maj. Engrs. (See Machinery Wanted.)

FERTILIZER FACTORIES

Ga., Macon.—Cotton States Seed & Fertilizer Co., capital stock \$300,000, Incptd. by Joel Hurt, W. M. Hutchison and G. C. Stevens of Atlanta.

Ga., West Point.—Farmers' Product Co., capital \$50,000, organized to establish fertilizer plant, cotton gin, etc.; later plans to build ice plant.

Md., Curtis Bay.—Atlantic Fertilizer Co. (Baltimore offices, 36 Stock Exchange Bldg.) will rebuild plant burned at estimated loss of \$300,000; operated by Sulzberger & Sons Co., 45th St. and 1st Ave., New York.

N. C., Henderson.—Vance Guano Co. contemplates adding machinery to treble capacity; not ready to announce details.

S. C., Charleston.—Etiwan Fertilizer Co., 24 Broad St., will hold meeting May 19 to consider increasing capital stock from \$125,000 to \$550,000.

### FLOUR, FEED AND MEAL MILLS

Ky., Horse Cave.—Horse Cave Light & Power Co. will build 4-stand 50-bbl. flour mill; ordered machinery.

La., Crowley.—A. Goodman of Josey-Miller Co., Beaumont, Tex., is arranging to secure site for feed mill.

Okla., Acme.—Acme Milling Co. is reorganized; Geo. G. Sohlberg, Prest. and Mgr.; D. Lindblom, V.-P.; G. C. Grogan, Secy.; J. T. McClelland, Treas. (Lately noted Incptd., capital \$100,000.)

### FOUNDRY AND MACHINE PLANTS

Fla., Kissimmee.—Irrigating Plants.—Mulberry Foundry & Machine Co., present address Mulberry, Fla., S. W. Moody, Mgr., will erect 60x100-ft. corrugated galvanized-iron building for general repair shop; cost about \$7000; product, irrigating plants. (Lately noted)

Ky., Covington.—Iron Work.—Stewart Iron Works organized; R. C. Stewart, Prest.; Robt. S. Stewart, V.-P.; W. H. Totten, Secy.; A. C. Aplin, Treas.; has plant with machinery installed; product, iron fence and jails. (Lately noted Incptd., capitalization \$100,000.)

Mo., Kansas City.—Iron.—Malleable Iron Foundry will erect foundry; 1 story; 70x200 ft.

Mo., St. Louis.—Steel Castings.—St. Louis Frog & Switch Co. will build plant to manufacture steel castings for special track work; increased capital from \$200,000 to \$350,000.

S. C., Florence.—Plows.—Universal Plow Co. increased capital stock to \$100,000.

Tex., Galveston.—Foundry.—Texas Carnegie Steel Assn. will install following equipment in warehouse: Cranes; 45-in. open-gap punch, capacity 1-in. hole through 1-in. plate; gate shear to shear 72 in. of 1-in. plate; hori-

zonタル gag press for 15-in. beams and channels; double-framed punch and coper to punch from 6-in. to 27-in. beams and cope 3-in. to 27-in. Carnegie sections, and angle shear to shear 6x6-in. angles; tools to be motor-driven and equipped with gear guards and safety appliances; equipment ordered.

Va., Blacksburg.—Machine Shop.—Virginia Polytechnic Institute, J. D. Eggleston, Prest., will expend about \$80,000 to erect McBryde Bldg. of Mechanic Arts; collegiate Gothic style; natural limestone with artificial concrete stone trimmings; 21x231 ft.; 1-story over major portion and 2 stories over remainder; floors and roof of concrete; front of first story to contain museum, professors' offices and 2 lecture-rooms, seating 50 students each; main portion for mechanical shop, machine bench shop, forge foundry and woodworking shop; drykiln and furnace; combination steam heating, with complete ventilating apparatus; plans and specifications ready for bidders; separate bids on heating, plumbing and electrical work; Architects, Carnegie & Johnston, 707 Chamber of Commerce Bldg., Richmond, where plans and specifications are on file. (Lately noted.)

Okla., Oklahoma City.—Oklahoma National Oil Co., capital stock \$25,000, Incptd. by J. M. Hines, J. M. Burd and E. M. Butler.

Okla., Oklahoma City.—Oil-pipe Line.—Tidewater Pipe Line Co., Independence, Kans., is reported as having estimates prepared for extension of oil-pipe line from Illinois field to Kansas and Oklahoma; has line from Carlyle, Ill., to Atlantic coast.

Okla., Oklahoma City.—Q. T. Oil & Gas Co., capital \$15,000, Incptd. by Geo. Wilson of Oklahoma City, J. W. L. Corley of Howe, Okla., and H. G. Baker of Hennessey, Okla.

Okla., Muskogee.—Stableman Oil & Gas Co., capital \$3500, Incptd. by A. W. Duncan, H. Wenzel and C. H. Stableman.

Okla., McAlester.—Wrenoga Oil & Gas Co., capital stock \$6000, Incptd. by Sherman M. Goss, B. E. Tabler and R. L. Schleg.

Okla., Muskogee.—Stableman Oil & Gas Co., capital \$3500, Incptd. by A. W. Duncan, H. Wenzel and C. H. Stableman.

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Okla., Oklahoma City.—Q. T. Oil & Gas Co., capital \$15,000, Incptd. by Geo. Wilson of Oklahoma City, J. W. L. Corley of Howe, Okla., and H. G. Baker of Hennessey, Okla.

Okla., Oklahoma City.—Kate Barnard Oil & Gas Co., capital stock \$15,000, Incptd. by Geo. Wilson of Oklahoma City, H. G. Baker, Hennessey, Okla., and J. W. L. Corley of Howe, Okla.

Okla., Okmulgee.—Eason Oil Co., capital stock \$6000, Incptd.; W. S. Truman and R. T. Potter of Okmulgee and J. M. Boyd of Fayetteville, Ark.

Okla., Sapulpa.—Jumbo Oil & Gas Co., capital stock \$20,000, Incptd. by C. S. Gardner and M. J. Hyland of Sapulpa and F. S. Westfall of Oklahoma City.

Okla., Sapulpa.—Toney Oil Co., capital stock \$35,000, Incptd. by M. E. France and A. G. Noel of Sapulpa and A. Shafer of Alva, Okla.

Okla., Shawnee.—Quinland Oil & Gas Co., capital \$10,000, Incptd. by Geo. E. McKinnis, E. E. Hood and Edward Howell.

Okla., Tulsa.—Tucker Drilling Co., capital stock \$2500, Incptd. by S. R. Mealy, W. P. Tucker and A. R. Thomas.

Okla., Tulsa.—Bluff Creek Oil & Gas Co., capital stock \$50,000, Incptd. by John P. Given, A. H. Mayginess and O. H. Danby.

Okla., Tulsa.—Oddac Oil & Gas Co., capital stock \$10,000, Incptd. by John A. Wise of Vinita, A. W. Ennis, Durant, and John S. Garvie, Tulsa.

S. C., Charleston.—Charleston Consolidated Ry., Gas & Electric Co. Increased capital stock from \$3,000,000 to \$3,500,000.

Tex., Dallas.—Oxygen Gas.—Oxygen Gas Co., Kansas City, Mo., is reported to build plant.

April 30, 1914.]

## MANUFACTURERS RECORD.

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**Tex., Port Arthur—Oil Refinery.**—Gulf Refining Co. is reported as to expend large amount of money for oil refinery additions.

**W. Va., Charleston.**—Victoria Oil Co., capital stock \$2,000,000, incptd.; T. C. Durham, Prest.; B. de Mossin, V.-P.; Wm. Sturgis, Secy.-Treas.; all of New York.

**ICE AND COLD-STORAGE PLANTS**

**Ark., Harrison.**—Harrison Ice & Storage Co. (R. M. Fellows, Propr.) let contract for equipment 25-ton ice plant; will build addition to present plant; construction by local parties; estimated cost \$15,000.

**Ark., Huntington.**—Coal & Gas Belt Electric Co., G. W. Skow, Gen. Mgr., will install 10-ton ice tank. (See Electric Plants.)

**Ga., West Point.**—Farmers' Product Co., capital \$50,000, organized; contemplates building ice plant. (See Fertilizer Factories.)

**Ky., Hodgenville.**—C. L. Herren will install lately-noted plant; 10 tons capacity. (See Machinery Wanted.)

**Ky., Hopkinsville.**—Ellis Ice & Coal Co. installed Stirling water-tube boiler; considering erection of cold-storage plant; plans not definite.

**Ky., Lafayette.**—Lafayette Ice & Electric Co., Samuel Bumpus, Propr., completed proposed additional storage-room for 100 tons ice; contemplates enlarging plant next season.

**Ky., Madisonville.**—Spring Lake Ice & Water Co., 201 W. Broadway, will increase capacity from 25 to 50 tons daily; placed machinery contract.

**Mo., Glasgow.**—Glasgow Pure Ice & Supply Co., Jas. B. Sincos, Prest., let contract to Rose Bros., Glasgow, to erect fireproof building; 73x10x6 ft.; cost \$3000; Rall Bros., Archts., Glasgow; machinery purchased; daily capacity 10 tons ice. (Lately noted incptd., \$11,000 capital.)

**Mo., Tracy.**—Platte County Ice & Cold Storage Co., capital stock \$3000, incptd. by A. P. Fulcher, Jasper Bradbury and Geo. H. Fisher.

**Mo., St. Joseph.**—St. Joseph Ice & Mfg. Co. let contract Commercial Construction Co. to erect building; brick and steel; cost \$5,000.

**N. C., Winston-Salem.**—Home Ice Co., authorized capital stock \$100,000, organized by C. M. Thomas & Co., W. T. Miller and others; will erect 30x82-ft. building on Norfolk St.; machinery contract let; daily capacity, 80,000 lbs.; Mr. Miller to be Sup't.

**Okl., Anadarko.**—Healdton-Ola Operative Co., capital stock \$300,000, incptd. by Roy M. Davis, A. B. Elliott and L. L. Paterson, all of Arapahoe, Okla.

**Okl., Oklahoma City.**—Offset Oil Co., capital stock \$10,000, incptd. by C. E. Hair, C. T. Grove and Fred Ptak.

**Okl., Tahlequah.**—Citizens Oil & Gas Co., capital stock \$20,000, incptd. by W. C. Holt, T. J. Carlile and others.

**Okl., Oklahoma City.**—Capital Ice & Storage Co. organized; J. P. O'Leary, Prest.; John H. Shirk, V.-P.; G. A. Morris, Secy.-Mgr.; operate ice and cold-storage plant; purchased plant and remodeled; cost \$30,000; construction by owner; cost of machinery \$30,000. (Lately noted incptd., \$110,000 capital.)

**Okl., Tulsa.**—Drumright Ice & Light Co., capital \$30,000, incptd. by Chas. W. Shobe, Chas. F. Petty and Orville Knight of Klefer, Okla.

**Tenn., Knoxville.**—Diamond Ice Co., capital \$50,000, incptd.; D. H. Williams, Prest.; D. H. Jenkins, V.-P.; R. W. Peery, Secy.-Treas.; purchased equipment, cost about \$25,000, for ice plant 40 tons daily capacity; will handle coal; considering installation cold-storage plant.

**Tenn., McMinnville.**—McMinnville Crystal Ice & Fuel Co. will make improvements costing several thousand dollars; installing water system, including deep well, 50-ft. tower, and tank of 15,000 gals. capacity.

**Tenn., Nashville.**—Nashville Cold Storage & Ice Co., capital stock \$675,000, incptd. by Edgar Zillman of New York, C. A. Manthy, R. Smith and others of Nashville; will construct plant with daily capacity 150 tons ice and storage capacity 5000 tons; main building 30x136 ft., 4 stories; reinforced concrete, with steel doors; plans also include construction of garage and stable; Engr., Edgar Zillman may be addressed, care of Hotel Savoy, Nashville. (Lately noted.)

**Tex., Amarillo.**—Crystal Ice Co. is making improvements, including water-tank tower and blower for furnace; all purchased.

**Tex., Naples.**—Seven Cities Co., St. Louis, Mo., will build ice plant. (See Electric Plants.)

**IRRIGATION SYSTEMS**

**Tex., Brownsville.**—Harlingen Irrigated Dist. of Cameron County votes May 8 on \$700,000 bonds, of which \$400,000 is to purchase present system and balance for improvements and extensions.

**Tex., Oldham County.**—Muncy Bros., Amarillo, Tex., will construct irrigating plant on Canadian River in Oldham county.

**Tex., Fowlerton.**—J. W. Haile plans to construct impounding reservoir on Frio River to irrigate 525 acres in LaSalle county.

**LAND DEVELOPMENTS**

**Ala., Birmingham.**—Lake View Grove Co., capital stock \$3000, incptd.; L. B. Graham, Prest.; J. F. Berry Baugh, V.-P.; T. P. McCalin, Secy.-Treas.

**Ala., Grand Bay.**—Rosedale Farm, capital stock \$50,000, incptd.; R. J. McIlrath, Prest.; R. P. Roby, V.-P.; J. H. Grace, Secy.-Treas.

**Ala., Mobile.**—O. B. Botterff and Geo. R. Ellison of St. Louis, Mo., and others purchased Overlook Addition, comprising 1040 acres; will develop and plant in Satsuma oranges and pecans; plans to build roads and improve for settlement.

**Ark., Texarkana.**—Texarkana Factory Site Co., authorized capital \$10,000, incptd. to develop land for factory sites; Allen William, Prest.; Paul Hawkins, Secy.; B. H. Kuhl, Treas.

**Fla., Jacksonville.**—Inland Development Co., capital stock \$25,000, incptd.; W. A. Riddle, Prest.; L. G. Moore, V.-P.; C. E. Riddle, Secy.; A. Y. Milam, Treas.

**Fla., Lakeland.**—Polk County Development Co., C. M. Clayton, Prest., will develop 15,000 acres land near Lakeland; contemplates later general improvement; Hugh Larmon, fiscal agent. (Lately noted incptd., \$200,000 capital.)

**Fla., St. Petersburg.**—Coffee Pot Land Co., capital stock \$120,000, incptd.; G. Perry Snell, Prest.; J. C. Hamlett, Treas.; J. C. Hamlett, Secy.

**Fla., St. Petersburg.**—Seagirt Land & Improvement Co., capital stock \$15,000, incptd.; H. E. Dickins, Prest., St. Petersburg; John L. Jelks, V.-P., Memphis, Tenn.; Edw. Durant, Secy.-Treas., St. Petersburg.

**Fla., Donaldsonville.**—Ascension Farms & Development Co., capital stock \$100,000, incorporated.

**La., Dalcour.**—Fidelity Land Co. will plant 30,000 orange trees in planting season of 1914-1915.

**La., Lutcher.**—St. James Perique Tobacco Co., capital stock \$50,000, incptd.

**Mo., Kansas City.**—City has plans for parking 8½ acres in vicinity of Union Station; estimated cost \$50,000. Address The Mayor.

**N. C., Wilmington.**—Brunswick Land & Lumber Co., Frank C. Page, Mgr., Southport, N. C., and Box 981, Wilmington, will drain, cut timber and clear 43,000 acres; conduct demonstration farm; subdivide into small farms for settlers; plans not definitely determined. (Lately noted purchased 43,000 acres in Smithville and Town Creek township and to develop for agriculture.)

**Tex., San Benito.**—J. George Bowyer is reported interested in plan to organize company capitalized at \$250,000 for development of citrus fruit industry.

**Va., Newport News.**—Little Farms Co. will develop small tract near Newport News; grading street, water, sewer and gas; no proposals; L. P. Stearnes, Prest.; D. S. Jones, V.-P.; J. E. Warren, Secy. (Lately noted incptd., capital stock \$15,000.)

**Va., Richmond.**—Kingsport Farms increased capital stock from \$10,000 to \$110,000.

**W. Va., Fairmont.**—Haymond Farm Co., capital stock \$75,000, incptd. by S. L. Watson, M. L. Hutchinson, C. L. Shaver and others.

**W. Va., Wheeling.**—Willow Glen Improvement Co., capital \$10,000, incptd. by H. B. Lockwood, Harry O. Wells, L. S. Talbot and others; offices in Schmulbach Bldg.

**LUMBER MANUFACTURING**

**Ala., Mobile.**—Jerome H. Shep, Guard Box Lumber Co., will rebuild burned plant; erect 168x51-ft. sawmill, 120x80-ft. planing mill, 100x60-ft. warehouse, 30x24-ft. office and 60x40-ft. boiler-house; construction and installation entire plant to cost about \$150,000. (Lately noted.)

**Ala., Mobile.**—Jerome H. Shep, Inc., main office in Land Title Bldg., Philadelphia, Pa.,

will rebuild plant recently burned; mfrs. cigar-box lumber, cedar veneered and imitation; erect 167x51-ft. sawmill, 120x80-ft. planing mill, 100x60-ft. warehouse, 56x38-ft. boiler-house, 120x22-ft. drykiln, 186x10-ft. steaming tank and shed; construct 1250 ft. railroad spur, and dredge channel 8 ft. deep by 50 ft. wide and 960 ft. long, costing \$3000; machinery for saw and veneer mill to include 8-ft. band saw, 72-in. gang edger, 54-in. twin band resaw, two 21-ft. veneer saws, etc.; planing mill to have 6 cabinet planers and imitation veneer machinery; is installing 300 H. P. and 200 H. P. Corliss engines; machinery purchased; approximate cost of buildings, machinery, installation, etc., about \$115,000. (Lately noted.)

**Ark., Deavill Bluff.**—Penrod-Jordan-McCullum Lumber Co. will rebuild sawmill reported burned.

**Fla., De Funik Springs.**—W. A. Harbeson, Carriere, Miss., purchased timber land near De Funik Springs and will erect circular sawmill. (Lately noted.)

**Fla., Tampa.**—Jetton Lumber Co. will rebuild plant lately noted burned.

**Ga., Pinecroft.**—Georgia Barrel & Lumber Co. (R. S. Spiers and others) will establish planing mill with barrel and stave factory; erect shed buildings costing \$500 to \$800; has portion of machinery. (Lately noted incptd.)

**Ky., Whitesburg.**—T. C. Seaman Stave Co., Winchester, Tenn., purchased oak timber lands and will install mills on Big Cowan Creek, 2 mi. from Whitesburg.

**La., Alexandria.**—Cooper Lumber Co., Jas. Cooper, Prest., let contract to P. N. Anger & Co., Shreveport, La., to build single 8-ft. band mill, shingle and lath mill. (Annual capacity lately reported at 10,000,000 ft. cypress and hardwood.)

**La., Winnfield.**—Winnfield Lumber Co., capital stock \$100,000, incptd.

**Tenn., Greeneville.**—White Lumber Co., Johnson City, Tenn., purchased 10,000 acres timber land in Greene county near Greeneville and will develop; also purchased Greeneville & Nolichucky Ry., 12 mi. long.

**Tenn., Knoxville.**—C. F. Maples Lumber Co. purchased plant of Knoxville Sawmill Co.; will erect buildings and install machinery, including planing mill.

**Tenn., Spencer.**—Laurel Cove Lumber Co., A. J. Sims, Gen. Mgr., will cut hardwood timber from about 2000 acres; manufacture into wagon stock, dimension and boards; machinery supplied.

**Tex., Dallas.**—A. J. Poirier will build planing mill; secured site at Corinth and Latimer Sts.

**Tex., Waco.**—Old River Mills, capital stock \$2000, incptd. by J. W. Dodson, L. Freed and Morris Freed.

**Va., Paint Bank.**—Lemon Lumber Co., capital \$50,000, incptd.; F. W. Udy, Prest., Bluefield, W. Va.; R. S. Ord, Secy., Mayberry, W. Va.

**W. Va., Jackson.**—Jackson Lumber & Supply Co., capital stock \$100,000, incptd. by J. E. Dickinson, G. D. Hankins and O. S. Poyntz, all of Huntington, W. Va., and others.

**Va., Wise County.**—Blackwood Lumber Co. (branch of Keys-Walker Lumber Co., Roanoke, Va.), Jas. E. Walker, Prest., will operate hardwood lumber plant, 40,000 ft. daily capacity; has building and machinery. (Lately noted incptd., \$30,000 capital.)

**W. Va., Huntington.**—Eastern Development Co., capital stock \$20,000, incptd. by E. Jackson, A. B. Hyman, G. C. Alderson and others.

**METAL-WORKING PLANTS**

**Ark., Pine Bluff.**—Harness Breeching—E. Bloom of Chamber of Commerce and J. P. Gracie of Rob Roy, Ark., are interested in plans to organize company with \$25,000 capital to establish plant to mfrs. patented metal harness breeching invented by Ben R. Williams of English, Ark.

**W. Va., Follansbee.**—Sheet and Tin Mills.—Follansbee Bros. Co., Pittsburgh, Pa., will, it is reported, add 3 hot sheet mills, giving total of 7 sheet mills and 6 tin mills; erect 2 brick warehouses, each 60x120 ft.; later, contemplates adding department to make galvanized sheets; also installing turbine and other equipment in power plant.

**MINING**

**Ark., Conway.**—Stone.—J. Frank Jones, Mayor, and J. W. Holt, County Judge, purchased site for quarry to obtain stone for rock crusher purchased by city and county.

**Fla., Jacksonville.**—Phosphate.—Meredith-Noble Phosphate Co., capital stock \$250,000, incptd.; Guy H. Noble, Prest., Somerville,

N. J.; Jas. F. Meredith, V.-P., Fort Myers, Fla.; Geo. H. Hooper, Secy.-Treas., Somerville, N. J.

**Mo., Joplin.**—Zinc.—Zinc Field Mining & Milling Co., capital stock \$250,000, incptd. by C. W. Chamberlain, M. C. Kendall and M. E. Chamberlain.

**Mo., Pacific.**—Lead and Zinc.—Pacific Oil & Mining Co., capital \$10,000, incptd. by Louis P. Gross, Jas. Booth and W. M. Beauchamp.

**N. C., Charlotte.**—Sand and Gravel.—Catawba Sand & Gravel Co., 1208 Commercial Bank Bldg., organized; C. W. Requarth, Prest.; W. F. McConless, Secy.-Treas.; E. K. Trickey, Mgr. (Lately noted incptd., capital stock \$20,000.)

**Okla., Miami.**—Church-Mabon Mining Co., capital stock \$50,000, incptd. by L. C. Church and J. S. Mabon of Miami and A. L. Blesh of Oklahoma City.

**Okla., Redland.**—Sand.—Hines-Kobel Sand Co., Sallisaw, Okla., lately noted incptd. (under Sallisaw), capital \$2400, organized; R. W. Hines, Prest.; R. Kobel, Secy.; R. C. Kobel, Mgr.

**Tenn., Nashville.**—Sand and Gravel.—Estill Sand & Gravel Co. increased capital stock from \$10,000 to \$20,000.

**Va., Richmond.**—Cobriza Mines Development Corp., capital stock \$100,000, chartered; D. M. Goodrich, Prest.; H. N. Jasper, Secy.-Treas., both of New York.

**MISCELLANEOUS CONSTRUCTION**

**Ark., Marion.**—Levee.—St. Francis Levee Board, O. N. Killough, Prest., let contract to Roach, Stansell, Lowrance Bros. & Co., Memphis, Tenn., at \$1,194,087 for levee enlargement and banquettes construction between Pecan Point and Walnut Bend, on Mississippi River; involves placing 4,248,900 cu. yds. earth; use no machinery except an elevating grader; probably subtlet considerable portion of work; brief details of contract as follows: Pecan Point, enlargement of 902,000 cu. yds.; extend down river 8 or 9 mi.; banquettes between Scanlan and Williford, 6 mi.; 410,000 cu. yds.; 5 mi. enlargement up-river from Bradley's, 476,000 cu. yds.; 2½ mi. enlargement at chute of Island No. 40, 287,000 cu. yds.; 5 mi. extending north and south from St. Clair, enlargement, 519,000 cu. yds.; 3 mi. banquette at St. Clair, 130,000 cu. yds.; 4 mi. enlargement opposite Memphis from Mound City to Rock Island tracks, 438,000 cu. yds.; 6 mi. enlargement at Scanlan and Graves Bayou, 495,000 cu. yds.; 3 mi. enlargement Graves Bayou to Williford, 245,000 cu. yds.; 3 mi. banquette at Seppel's to Bruin, 126,000 cu. yds.; dyke at Seppel's, 300 ft., 20,000 cu. yds.; 2 mi. banquette Bledsoe, 71,900 cu. yds.; 1 mi. enlargement at Peters and closing 1800-ft. break at Pillow Mound, 40,000 cu. yds.; total enlargement 3,035,000 and banquette 1,243,900 cu. yds.; B. G. Covington, Ch. Engr. Levee Board, 66 Randolph Bldg., Memphis. (Lately noted.)

**D. C., Anacostia.**—Dredging.—Government will dredge in Anacostia River, D. C.; bids until May 6; C. W. Kutz, Maj., Engrs. (See Machinery Wanted.)

**Fla., Miami.**—Seawall.—Alton Beach Realty Co., Carl G. Fisher, Prest., 210 12th St., is reported to construct 500 ft. of seawall, concrete, reinforced with steel rods, with intention to extend wall later along entire east side of Biscayne Bay; states plans not ready for announcement; W. E. Brown, Engr.-Mgr.

**Ga., Augusta.**—Levee.—City votes June 1 on \$750,000 bonds to complete levee along Savannah River bank to protect city from floods; Nisbet Wingfield, Chief Engr. River and Canal Com., 747 Broad St. (Lately noted.)

**Ga., Macon.**—Park Entrance.—City will construct brick and terra-cotta entrance to Central City Park; cost \$3000. Address The Mayor.

**Ky., St. Helena.**—Heating Plant.—Board Public Safety let contract Sunford Vaughn & Son, Louisville, at \$6700 to erect boilerhouse at Home for Aged and Infirm, and to A. J. Anderson & Co., Louisville, for steam heating plant at same institution; John H. Thomas, Archt., 511 Keller Bldg., Louisville. (Call for bids lately noted.)

**La., New Orleans.**—Banana Conveyors.—Port Commrs. let contract B. N. Davis, New Orleans, at \$25,654, to construct 3 banana conveyors of Harris-Eddleston type on lower end Pauline St. wharf.

**Md., Fort Washington.**—Ditches.—Government will dig and grade about 3900 ft. ditches and wasting earth therefrom; bids until May 5; address Quartermaster. (See Machinery Wanted.)

**Mo., St. Louis.**—Incline.—Manufacturers' Ry. Co. plans to construct incline along Mis-

sissippi River Wharf, extending 2500 ft. from Dorcas St.; estimated cost \$120,000; S. M. Woodard, Supt., St. Louis.

Tenn., Memphis—Levee.—City let additional contracts in connection with construction of levee and pumping system to protect section of northern portion of city from overflow: Pidgeon-Thomas Iron Co. at \$44,659 for steel sheet piling and C. J. Wagner & Sons at \$37,300.00 for concrete walls and at \$8,276.40 for hauling and driving piling. (Bids for these contracts lately noted rejected.)

Tex., Galveston—Shed.—Galveston Wharf Co., J. J. Davis, Gen. Mgr., will enlarge present sheds, making 80,000 ft. additional shedded capacity for use of Mallory Steamship Co.; plans and specifications now with contractors. (Lately noted as built by Mallory company.)

#### MISCELLANEOUS ENTERPRISES

Ala., Birmingham—Laundry.—Birmingham Laundry Co. will secure another building and re-establish laundry burned at loss of about \$20,000.

Ala., Mobile—Cattle, etc.—Tennessee Sales Stable Co., 207 St. Michael St., Incptd. with \$2000 capital stock; B. P. Coleman, Prest.; J. C. Edwards, Secy.

Ark., Stuttgart—Farm Machinery, etc.—C. E. Gorton, Box 721, will organize company to handle farm machinery, vehicles, fertilizers, automobiles, feeds, oils, etc., on commission; desires correspondence with manufacturers and producers. (See Machinery Wanted.)

D. C., Washington—Dairy.—Carroll Manor Dairy, 1413 G St. N. W., organized by J. Selwyn Tait, Chas. M. Pepper, H. Krogstad and others; will pasteurize milk in bottle.

Ga., Tallapoosa—Printing.—Walter Morrow will expend \$5000 to erect building to contain printing plant and stores; lately noted. (See Stores.)

Ga., Waycross—Crematory.—City let contract to Nye Odorless Crematory Co., Macon, Ga., for unit plant; cost \$3500. (Lately noted.)

Ky., Richmond—Laundry.—Normal City Laundry organized; Eugene Miller, Prest.; G. W. Goodloe, Secy.; Trens.; conduct laundry; plant equipped. (Lately noted Incptd., capital stock \$25,000.)

La., Lake Charles—Construction.—Southern Construction Co., capital \$25,000, Incptd. by Percy R. Hippie, R. V. McSpadden and J. V. Lemay; will secure contract for Highway No. 1 of Calcasieu parish.

La., Shreveport—Plumbing and Heating.—Hoke Plumbing & Heating Co., capital stock \$25,000, Incptd.

Miss., Jackson—Amusement Resort.—Jackson-Clinton Motor Transit Co., E. J. Elizley, Prest., will establish amusement resort; lately noted Incptd., \$10,000 capital, to operate motor line between Jackson and Clinton. (See Machinery Wanted.)

Mo., Springfield—Publishing.—Independent Publishing Co., capital \$6000, Incptd. by E. F. James, J. W. Rose and A. M. McKee.

Mo., St. Louis—Laundry.—American Steam Laundry Co. leased site 188x154 ft. on which to build laundry; let contract M. Eysell Construction Co. to erect building.

Mo., St. Louis—Laundry.—Lewis estate will erect 2-story laundry; cost \$18,000; Eysell Construction Co., contractor, St. Louis.

Mo., St. Louis—Hardware.—Ratz Bros. Hardware Co., capital stock \$10,000, Incptd. by Harry M. and Albert G. Ratz, Wm. F. Dieckmann and Jacob W. Giesler.

Mo., St. Louis—Plumbing.—Flynn Plumbing Co., capital \$5000, Incptd. by John D. Flynn, Sr., John D. Flynn, Jr., and Wm. C. Edwards.

Okl., Ardmore—Laundry.—Globe Laundry Co., capital stock \$10,000, Incptd. by C. D. Reeves, E. S. Stahl and Gertrude Stahl.

Okl., Oklahoma City—Laundry.—Columbus Laundry Co., capital stock \$3000, Incptd. by S. M. Ritenour, Patrick F. Quigley and W. E. Gamble.

S. C., Rock Hill—Publishing.—Record Printing Co. succeeds Schwar & Williams, partnership; publish Rock Hill Record and conduct general printing. (Lately noted Incptd., capital \$10,000.)

Tenn., Nashville—Printing.—A. M. E. Sunday-School Union, Ira T. Bryant, Secy., purchased property at 8th and Lea Aves.; will erect building to be equipped as publishing plant for African Methodist Episcopal Church; reported to install rotary press, monotype machine, etc.

Tenn., Nashville—Construction.—Nashville-Detroit Construction Co., authorized capital \$100,000, Incptd. by Cameron Currie, W. E. Steger, A. W. Willis and others; to construct Nashville Traction Co.'s lines and equipments.

Tex., Austin—Publishing.—Texas Posten Publishing Co., capital stock \$10,000, Incptd. by E. Severin, O. E. Olander, J. M. Ojerholm and Reinhold Pearson.

Tex., Lyford—Publishing.—Union Publishing Co. will establish weekly newspaper plant; erect 25x100-ft. brick building; contractor, W. T. Reneberg, Mercedes, Tex.; install printing press (cost \$1200), gasoline engine and shafting. (Lately noted Incptd., capital stock \$5000, by C. E. Craig and others.)

Tex., Trenton—Publishing.—Trenton Tribune will erect building; brick; 25x60 ft.; plate-glass front; concrete floor; steel ceiling.

Va., Alexandria—Dairy.—Carroll Manor Dairy, capital stock \$1000, Incptd.; C. M. Pepper, Prest.; H. R. Burton, Secy. (of McLanahan & Burton, Union Trust Bldg.), both of Washington, D. C.

Va., Lynchburg—Construction.—Bennington Construction Co., capital stock \$10,000, incorporated; S. B. Bennington, Prest.; Mary B. Bennington, Secy.

Va., Norfolk—Publishing.—Southern Review Publishing Co., capital stock \$35,000, Incptd.; A. H. Fudge, Prest.; C. H. Tabbetts, Secy.

Va., Petersburg—Transfer.—P. G. Seward Luggage Co., capital \$50,000, Incptd.; P. G. Seward, Prest.; W. J. Rahilly, Secy.

Va., Winchester—Transportation.—Shenandoah Valley Transportation Co. chartered; capital stock \$10,000; W. G. Powell, Prest.; Berger Bldg.; D. C. Mitchell, V.-P.; Geo. W. Mitchell, Treas.; F. P. Fair, Gen. Mgr.; all of Pittsburgh, Pa.; operate motor line from Winchester to Woodstock, Va., via Valley Pike; automobile trucks at present.

#### MISCELLANEOUS FACTORIES

Ark., Hamburg—Jas. L. Pugh Mfg. Co., capital \$12,000, Incptd.

Ark., Little Rock—Skirts.—Improved Skirt Co., capital \$10,000, Incptd. by F. W. Warner, W. F. McCormick and Louis Rossman.

Ark., Ruddells—Lime.—Arkansas Lime Co. increased capital stock to \$100,000.

Fla., Ocala—Peanuts.—Raynor Peanut Co. contemplates erection of plant to hull, clean and roast peanuts; plans not decided; probable expenditure within \$25,000. (See Machinery Wanted.)

Fla., West Palm Beach—Electrical Equipment.—G. A. Bauer Co., G. A. Bauer, Prest., Chicago, Ill., is reported to establish plant.

Fla., Tampa—Cigars.—E. W. Parker, Tampa, has contract to erect building to be occupied by Morgan Cigar Co., West Tampa; 45x55 ft.; ordinary construction; cost \$10,000; F. Jones, Archt., Tampa.

Ga., Atlanta—Films.—Al. Bartlett Film Mfg. Co., 217 Rhodes Bldg., organized; Al. Bartlett, Prest.-Mgr.; H. G. Morrow, V.-P. and Secy.; Martin F. Amorous, Treas.; mfrs. moving-picture films, about 500 ft. daily; using temporary quarters; no definite building plans. (Lately noted Incptd., capital stock \$6000.)

Ga., Augusta—Brewery.—Augusta Brewing Co. will increase capacity of bottling department at cost of \$15,000; let contracts.

Ga., Fort Screen—Bakery.—Government let contract Algernon Blair, Montgomery, Ala., at \$5500 to build bakery. (Lately noted.)

Ga., Fort Oglethorpe—Bakery.—Government will construct addition to bakery building; bids until May 11. Information on application to Constructing Quartermaster.

Ga., Macon—Naval Stores.—Interstate Naval Stores Co., capital stock \$25,000, Incptd. by S. W. Irvine, T. M. Wheless and J. E. Dean.

Ky., Hopkinsville—Creamery.—Fox Bros. Co., capital stock \$35,000, Incptd. by Frank G. Fox, Jos. Fox and Michael Fox, all of Chicago, Ill.; will continue Peter Fox Sons Co.

Ky., Louisville—Tobacco.—Ryan-Hampton Tobacco Co., 828 S. Floyd St., organized; W. E. Massey, Prest. and Treas.; J. W. Goodrum, V.-P.; J. B. O'Brien, Secy. (Lately noted Incptd., capital \$100,000.)

Ky., Princeton—Bottling.—P. G. Bottling Works contemplates enlarging plant; will probably install additional pumps, conveyors and other equipment.

La., Gretna—Alcohol.—New Orleans Industrial Alcohol Co., Jos. C. Eggart, Prest., New Orleans, will issue \$150,000 bonds; erecting plant consisting of stillhouse, fermenting house, bonded warehouses, engine and boiler house, office and storage buildings and docks; install plant with daily capacity 16,500 gals. molasses, to produce about 3,000,000 gals. proof spirits per annum; site covers 264,975 sq. ft., with frontage of 225 ft. on Mississippi

River. (Lately noted Incptd. under La., New Orleans, with \$250,000 capital stock.)

La., New Orleans—Advertising Novelties.—Crescent Advertising Novelties Co., capital stock \$25,000, Incptd.

La., New Orleans—Films.—Coquille Film Co., capital stock \$50,000, Incptd.

Md., Baltimore—Puddine.—Fruit Puddine Co., capital stock \$50,000, Incptd. by Geo. A. Solter (office in Maryland Casualty Tower) and others; to mfrs. cereal products.

Md., Baltimore—Bakery.—City Baking Co., 500 Equitable Bldg., let contract Consolidated Engineering Co., Emerson Tower Bldg., to erect addition to White bakery at 416-422 S. Hanover St.; brick and concrete; 107x120 ft.; semi-fireproof construction; 3 stories; cost \$90,000; Archt., John Freund, Jr., 508 Hoffman Bldg., Baltimore. (Lately noted.)

Md., Baltimore—Bakery.—Crown Crown & Seal Co., 1501-1523 Guilford Ave., has plans by Otto G. Simonson, Maryland Casualty Tower Bldg., to erect addition to plant at Oliver, Barclay and Latrobe Sts.; 210x181 ft.; 3 stories; glass between concrete columns; beamless door system. (Lately noted.)

Mo., Joplin—Groceries.—Interstate Grocer Co. let contract Bane & Hoffman, Joplin, to erect building; 5 stories and basement; 130x162 ft.; reinforced concrete; install machinery to mfrs. pancake flour and baking powder; mill, blend, roast, mix and pack coffee; pulverize and pack granulated sugar and weigh and pack rice; weighing and packing machinery to be automatic; also install sanitary vinegar tanks and printing machinery. (See Stores, Contracts Awarded.)

Mo., Kansas City—Chandlers.—Stephens Gas Electric Chandler Co., capital stock \$30,000, Incptd. by S. S. Stephens, W. C. Chapman and E. G. Stephens.

Mo., Kansas City—Crackers.—Interstate Cracker Co., capital stock \$10,000, Incptd. by C. E. Gould, Jas. McQueeney and John Kavanaugh.

Mo., St. Louis—Mouldings and Screens.—E. Schoenberg Mfg. Co., 2914-2925 De Kalb St., purchased site 90x100 ft. at Shenandoah and Louisiana Aves. on which to build plant.

N. C., Charlotte—Bottling.—Charlotte Chero-Cola Bottling Co., capital stock \$50,000, Incptd. by Thos. M. Mabers of Charlotte, Geo. S. Garrand of Swainsboro, Ga.; P. W. Walton, Jr., and T. G. Greene of Eatonton, Ga.

Okl., Tulsa—Cigars.—Mid-Continent Cigar Co., capital stock \$5000, Incptd. by Jas. W. Small and John H. Small of Tulsa, and Geo. A. Masters of Perry, Okla.

Mo., St. Louis—Clothing.—Pierce Garment Co., capital stock \$25,000, Incptd. by Ralph Aul, Louis Arkush and Clarence F. Jackson.

Mo., St. Louis—Electrical Supplies.—Clarance W. Schnelle, representing electrical supplies manufacturers, obtained site for construction fireproof building to cost \$65,000.

N. C., Wilmington—Bakery.—Globe Baking Co. let contract Rhodes & Underwood to erect bakery; 2 stories; brick; cost \$12,000. (Lately noted.)

N. C., Winston-Salem—Tobacco.—Export Leaf Tobacco Co. let contract Wise Granite & Construction Co., Richmond, Va., to erect reordering plant; 2 stories; 70x318 ft.; cost \$50,000.

Okl., Enid—Silos.—Easy Built Silo Co., capital stock \$10,000, Incptd. by Wm. C. Allen and Thos. E. Foster of Enid and R. J. Clark of Jet, Okla.

Okl., Sapulpa—Cigars.—Sapulpa Cigar Co., capital stock \$5000, Incptd. by Horace Wilson, M. Weller and K. W. Baker.

Okl., Tulsa—Anderson Mfg. Co., capital stock \$50,000, Incptd. by J. M. Clover, S. C. Clover and H. F. Rethman.

S. C., Columbia—Mantels.—Columbia Mantel Co., 1609 Sumter St., organized with \$2000 capital stock by S. L. Jackson, Chas. E. Ketchen and C. H. Lindfors.

S. C., Greenville—Bottling.—Coffee-Oca Co., capital \$1000, Incptd.; W. L. Gassaway, Prest.

S. C., Spartanburg—Bottling.—Coca-Cola Bottling Co., capital \$5000, organized by J. W. and A. R. Allen.

S. C., Sumter—Bottling.—Sumter Chero-Cola Bottling Co., capital \$10,000, Incptd. by W. H. Bowers and M. H. Morris.

Tenn., Memphis—Cellulose.—Memphis Cotton Mfg. Co., John P. Bullington, Treas., Central Bank Bldg., is planning to mfrs. cellulose. (See Textile Mills.)

Tenn., Memphis—Paper Boxes.—Tri-State Paper Box Co., capital \$50,000, Incptd. by J. O. Luke, H. T. Wilson, G. A. Washington and others.

Tenn., Mount Pleasant—Creamery.—J. E. Anderson is promoting erection of creamery.

Tenn., Nashville—M. F. Hopkins Mfg. Co., capital stock \$2000, Incptd. by M. M. Hopkins, J. D. Boone, John H. Tipton and others.

Tex., Bellville—Washing Machines.—Buckling Ram Washing Machine Co. organized by C. F. Hellmuth, Max Bader, L. A. Machemehl and others; erect building and equip to mfrs. washing machines.

Tex., Houston—Medicine.—Sangulnett, Staats & Gottlieb, Houston, are preparing plans for building to be occupied as mfrs. plant by J. B. Watkins Medical Co.; structure will be 6 stories; reinforced concrete; 170x70 ft.; cost \$100,000.

Va., Dayton—Creamery.—Dayton Creamery & Ice Corp. will enlarge plant; install additional 400-gal. cream ripener.

Va., South Hill—Farmers' Union Fertilizer Co., Baskerville, Va., Ralph Jessup, Prest., operates fertilizer plant of 100 tons daily capacity; plant equipped. (Lately noted organized, capital stock \$75,000.)

W. Va., Bluefield—Beverages.—Gin Gera Bottling Co., F. B. Howard, Prest., Norfolk, Va., leased building and purchased machinery for bottling plant; daily capacity 400 cases or 800 doz. bottles soda beverages. (Lately noted.)

W. Va., Charleston—Asphalt Paving.—Wood Fiber Asphalt Co. organized to develop paving of wood fiber and asphalt; capacity of plants not definite. (Lately noted Incptd., \$250,000 capital stock, by A. G. Wemock, W. G. MacCorkle and others.)

W. Va., Wheeling—Extracts, etc.—Grainer Mfg. Co., 2160 Main St., organized; Lafayette Grainer, Prest.; Oliver D. Grainer, V.-P.; B. R. Higgins, Secy.; E. E. Long, Treas.; will mfrs. blueing, extracts, castor oil, furniture polish, etc. (Lately noted Incptd., \$10,000 capital.)

#### MOTORS AND GARAGES

Ala., Anniston—Garage.—Bosworth Garage Co. will erect 50x120-ft. 1-story reinforced concrete garage; plate glass and Fenestra steel sash; plans by Geo. C. Odiorne, in charge construction.

Ala., Birmingham—Garage.—Birmingham Realty Co. has plans by Miller & Martin, Birmingham, for garage; 50x100 ft.; brick; trussed roof.

Ala., Montgomery—Motor Accessories.—Motor Accessories Co., capital stock \$4000, incorporated by C. E. Hill (Prest.), O. B. Harris and Mary G. Harris.

Ark., Little Rock—Garage.—Little Rock Auto Garage let contract to Tholman & Reid to erect fireproof garage; 2 stories; cost \$8000; install motors, lathes and presses; address proposals to Union Trust Co.; lately noted. (See Machinery Wanted.)

Ga., Griffin.—J. H. Stevens has plans by and let contract to Gresham Mfg. Co., Griffin, to erect garage; 31x80 ft.; ordinary construction; electric lighting; cost \$300. (Lately noted under Stores.)

Ky., Lexington—Moon Auto Co., 188 Dewes St., organized; B. B. Read, Prest.; E. H. Read, Secy.-Mgr.; J. Pat McCann, Treas.; erect \$1500 34x80-ft. mill-construction building; install motor, lathe and drill. (Lately noted Incptd., \$8000 capital.)

Ky., Louisville—Garage.—Board of Public Works is reported as contemplating erecting garage and installing machine tools and other repair equipment.

Ky., Taylorsville—Garage.—M. F. Check contemplates erecting garage and repair shop; also enlarging electric plant.

La., New Orleans—Automobiles.—Automobile Trading Co., capital stock \$50,000, Incptd.

Va., Alexandria—Automobiles.—Central Automobile Co., capital stock \$5000, Incptd.; W. H. Heymel, Prest.; J. A. Eggborn, Secy.

W. Va., McMechen—Garage.—Wesley Baumberger will build garage in Bloyd & Doyle Addition on Marshall St.

#### RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

La., Algiers, Station A, New Orleans.—Morgan's Louisiana & Texas R. R. & Steamship Co. is reported to enlarge machine shops.

Va., Norfolk—Norfolk & Western Ry., J. E. Crawford, Ch. Engr., Roanoke, Va., will erect addition of 170x75 ft. to present shop building; will extend craneway full length of addition.

#### ROAD AND STREET WORK

Ala., Birmingham.—Board of Commrs. let contract at \$6380 to Dunn & Lallande Bros., Birmingham, for proposed asphalt paving

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on 22d St. from Ave. F to Ave. H; includes concrete and brick gutters, sewer pipe, reset curb and granite curb; Julian Kendrick, City Engr.

Ala., Birmingham.—City will grade, macadamize, curb and construct gutters and sidewalk paving on 32d and 31st Aves.; estimated cost \$8000; bids by Commsrs. until May 5; about 4600 cu. yds. excavation, 270 sq. yds. cement work; Julian Kendrick, City Engr. (See Machinery Wanted.)

Ala., Birmingham.—Board of Commsrs. let contract McCartin Construction Co., Birmingham, to grade, macadamize and construct combined curb, gutter and sidewalk paving on N. 26th St. from 15th to 17 Ave.; estimated cost, \$19,440; includes 24,100 cu. yds. excavation, 3900 lin. ft. combined curb and gutter, 2400 lin. ft. granite curb, 800 sq. yds. concrete gutter, 2640 sq. yds. cement walk, 19 inlets, pipe, chert, slag, and 450 ft. of 2-ft. 9-in. brick sewer; Julian Kendrick, City Engr. (Bids noted.)

Ala., Carrollton.—City will construct cement sidewalks; let contract Tuscaloosa Concrete & Supply Co., Tuscaloosa, Ala.

Ala., Moulton.—Lawrence County Commsrs. will construct macadam road extending from Flat Creek toward Morgan county line; expenditure \$6542.26; W. S. Keller, State Highway Engr., Montgomery, Ala.; bids until May 15. (See Machinery Wanted.)

Ala., Gadsden.—City will pave Forrest Ave. from 7th to 12th St.; estimated cost \$24,000. Address The Mayor.

Ala., Oneonta.—Blount County Commsrs. will grade and drain 3 mi. road from Ross toward Cleveland, Ala.; W. S. Keller, State Highway Engr., Montgomery, Ala.; bids until May 15. (See Machinery Wanted.)

Ala., Union Springs.—City will pave sidewalks on two principal streets. Address The Mayor.

Ark., Conway.—Commsrs. Street Improvement Dist. No. 1 let contract F. U. Halter and R. B. McCulloch at \$20,095.50 to pave streets with concrete; 12,000 yds.; 3500 ft. concrete curb and gutter, drain tile, catch-basins, etc.; G. A. Burr, Engr. (Lately noted.)

Ark., Helena.—State Highway Dept., Hugh Carter, State Highway Engr., Little Rock, will construct 6-mi. concrete road from Elaine to Wabash; cost \$50,000; bids until May 1.

Ark., Helena.—Road Dist. of Phillips county will construct 6 mi. concrete road, with macadam passage; bids until May 12 at office of Kelly & Allen, Solomon Bldg., Helena; Hugh R. Carter, State Highway Engr., Little Rock, Ark. (See Machinery Wanted.)

Ark., Jonesboro.—City will construct 10,000 sq. yds. brick paving and 4000 lin. ft. concrete curbing; bids until June 1 at office of B. H. Berger, Secy. Board of Commsrs. of Street Improvement Dist. No. 10. (See Machinery Wanted.)

Ark., Paragould.—City let contract L. W. Johnson, Memphis, Tenn., for paving to cost \$15,000; 14,300 sq. yds. brick in business district; 20,840 sq. yds. bitulithic, 12,422 sq. yds. bitustone and 720 sq. yds. gravel, in residence district. (Lately noted.)

Fla., Apopka.—Town is reported to vote on bonds to pave sidewalks. Address Town Clerk.

Fla., Manatee.—City votes May 26 on \$40,000 bonds to pave streets. C. J. Major, Mayor. (Lately noted as having surveys made by John Lloyd Minnis, Engr., Tarpon Springs, Fla.)

Fla., Fort Meade.—City let contract C. M. Ward, Pensacola, to construct cement sidewalks.

Fla., Lakeland.—Lakeland Paving & Construction Co. plans to construct 53-ft. macadam boulevard around Lake Morgan, circular distance of about 1 mi., and pave sidewalks with concrete.

Fla., Orlando.—City will construct 138,000 sq. yds. brick paving; use 5,000,000 bricks; amount available, \$200,000; date of opening bids not set; G. R. Ramsey, Engr. (Lately noted.)

Fla., West Palm Beach.—City let contract E. P. Maule at \$3356 to improve Olive St. from 3d Ave. to lower bridge.

Fla., West Palm Beach.—Palm Beach county issued \$45,000 bonds for road and bridge construction in Dist. No. 2. Address County Commsrs.

Ga., Cordele.—City will extend paving, now being laid in business district, 10 blocks in residential section; Engr., Arthur Pew, Atlan-

Ga., Dawson.—City has surveys made by J. B. McCrary Co., Third Natl. Bank Bldg., Atlanta, for paving business section; contemplates using wood block or brick.

Ga., Summerville.—Chattooga County Board of Roads and Revenues is considering \$50,000 bond issue to improve roads, including construction of Chattooga link of Chattanooga-Athens Government highway.

Ky., Bardstown.—Nelson county will construct 6% mi. turnpike on old Fairfield and Bardstown Rd.; Road Commsrs. (Jas. Sheanhan and others) have received bids.

Ky., Burlington.—Boone county will improve roads; bids received by County Road Engr. Apr. 27; additional work contemplated.

Ky., Carlisle.—Nichols County Fiscal Court considering appropriation to construct 14-mi. road from Bath county line to Millersburg.

Ky., Frankfort.—E. H. Taylor, Jr. (owner of large estate) is reported as planning to build macadam roads.

Ky., Franklin.—Simpson county votes May 2 on \$100,000 bonds to construct roads. Address County Commsrs.

Ky., Junction City.—City is reported to construct streets. Address The Mayor. (Lately noted.)

Ky., Hickman.—Fulton County has \$8000 or \$10,000 available to grade and maintain 212 mi. road; P. Hawkins, Engr.; contract (lately noted) let to S. A. Wilson to grade 77 mi. road.

Ky., Somerset.—Pulaski County votes again June 26 on \$300,000 bonds to construct roads; C. M. Langdon, County Clerk. (Election, lately noted to be held Apr. 24, defeated bonds.)

Ky., La Center.—City will construct concrete street crossings, etc.; bids received until Apr. 27 by T. U. West, Street Commr.

Ky., Lexington.—City let contract to Carey-Reed Constr. Co., Lexington, to construct 4 blocks on Water St.; vitrified brick on concrete foundation.

Ky., Lexington.—City will pave about 6 blocks of North Ashland St. with asphalt; will soon receive bids; J. W. Guy, City Engr.

Ky., Louisville.—Board of Public Works let contracts for 34 sections concrete sidewalk construction: American Concrete Construction Co., 11 sections; Roscoe Butler, 12 sections; Edwin S. Larson, 6 sections, and L. R. Flagg Co., 5 sections. (Lately noted.)

Ky., Madisonville.—City is reported as planning bond issue for street construction. Address The Mayor.

Ky., Madisonville.—Hopkins county considering \$250,000 bond issue to macadamize county roads already graded. Address County Commsrs.

Ky., Mayfield.—Graves county contemplates improving State road, including widening at various points; J. E. Carman, Road Engr.

Ky., Middleboro.—City will spend \$100,000 for street work, macadam in residence section and probably bitulithic in business district; Cumberland, Lothrop and Ashbury Aves. and N. 20th and N. 19th Sts. Included in proposed paving; L. F. Debusk, R. M. Barry and Geo. H. Guderian, Com. of Investigation on types of street construction. (Bonds previously noted.)

Ky., Shepherdsville.—Bullitt county will improve roads; bids for construction of 4% mi. macadam road have been received by Guthrie Wilson, Nelson County Engr., Bardstown, Ky.

Ky., Covington.—St. Tammany parish votes June 3 on \$180,000 bonds to construct 200 mi. roads. Address Police Jury.

La., Donaldsonville.—Ascension Parish Police Jury authorized issuance of \$35,000 bonds to build roads in First Road Dist.; authorized in Mch., 1913.

La., New Orleans.—Highway Dept., Board of State Engrs., let contract S. A. Gano, Jackson, Miss., at \$39,700 to construct Bossier City-Benton highway, and to Wetzel & Co., Danville, Ill., Bossier City-Ninosh highway (25 mi.); rejected bids to construct Shreveport-Homer highway; W. E. Atkinson, State Highway Engr. (Call for bids lately noted.)

La., Shreveport.—Bossier Parish Police Jury let contracts for three 5-mi. extensions of roads leading from Shreveport: Richie & Co., Camden, Ark., at \$15,971, Hart's Island extension toward Red River parish line; Gaynor & Co., Jackson, Miss., at \$23,284.50, Mooringport extension on Shreveport oil-field route; Healy Construction Co., Meridian, Miss., at \$21,057.75, extension Greenwood Rd.

Md., Baltimore.—State Roads Com., 601 Garrett Bldg., let contract Harper & Voigt Co., 717 14th St. N. W., Washington, D. C., at \$35,700 to construct road from Darneys Lane to Dawsonville, 3½ mi. (Call for bids lately noted.)

Md., Baltimore.—City will grade, curb and pave, under Contract 86, on Rutter, Jenkins and Mason Alleys and Brevard St.; 10,300 sq.

yds. cement concrete; bids until May 6; B. Keith Compton, Chrmn. of Paving Com. and Cons. Engr. (See Machinery Wanted.)

Md., Baltimore.—City will construct cement or gravel walks and roadways at Bayview Asylum; bids until May 6; drawings and specifications at office Inspector of Buildings, C. E. Stubbs. (See Machinery Wanted.)

Md., Baltimore.—State Roads Com., O. E. Weller, Chrmn., 601 Garrett Bldg., let following contracts for road construction: David M. Andrews Co., Mount Vernon Ave. and 26th St., Baltimore, at \$24,068.70, to resurface Emmitsburg Pike; Criswell-Mallory Co., Mechanicsville, N. Y., at \$63,001.35, Coopersville Rd., Frizzelburg, Carroll county, 5.49 mi., macadam; Clark-Hayward Co., 35 U. S. F. & G. Bldg., Baltimore, at \$31,791, Frederick Pike, Howard county, 4.20 mi., resurfacing; W. H. Claggett, Pikesville, Md., at \$34,103, Elliott City Elbow, Howard county, 5.75 mi., resurfacing.

Md., Chestertown.—City voted \$25,000 bonds for streets and sewers. Address The Mayor. (Lately noted.)

N. C., Elizabethtown.—Carvers Creek Township voted \$10,000 bonds to construct roads; D. G. Robeson to be in charge.

N. C., Kinston.—Lenoir county will vote on bonds to construct roads. Address County Commsrs.

N. C., Kinston.—City will vote on \$100,000 bonds for public improvements. Address The Mayor.

N. C., Raleigh.—City Commsrs. let contract to Robt. G. Lassiter, Oxford, N. C., for 120,000 sq. yds. asphalt paving; use Aztec asphalt; this contract additional to that for 40,000 sq. yds. let to same contractor.

N. C., Winston-Salem.—City votes June 23 on \$50,000 bonds to improve streets; O. B. Eaton, Mayor. (Lately noted.)

N. C., Lillington.—Lillington township, Dr. J. W. Halford, Chrmn., will construct about 25 mi. sand-clay and gravel roads; \$15,000 available; date of opening bids not set. (Bonds lately noted voted.)

N. C., Moores Springs.—Quaker Gap Toll Road Co., W. G. Moore in charge, has begun construction of lately-noted 4-mi. road; C. T. Grubbs, contractor, Moores Springs; contemplates about 12 mi. additional road construction. (Lately noted under Danbury.)

N. C., Pineview.—J. A. Harps is interested in construction of road; reported as about to let contract.

Okl., Hugo.—Wilson township of Choctaw county will vote on \$30,000 bonds to construct roads. Address County Commsrs.

Okl., Marietta.—City will construct 20,000 sq. yds. vitrified street paving, including all grading, storm sewers and curbling; bids until May 4; Benham Engineering Co., Consulting Engr., Oklahoma City; lately noted. (See Machinery Wanted.)

Tenn., Chattanooga.—City will pave and curb portion of sidewalks for Dist. No. 7 on Willow St.; Dist. No. 145, Willow St.; Dist. No. 186, Highland Park Ave.; Dist. No. 177, E. 4th St.; Dist. No. 183, Chestnut St.; Dist. No. 184, 26th St.; Dist. No. 185, Main St.; A. N. Sloan, Commr. Dept. of Streets and Sewers; bids until Apr. 27 at office Board of Commsrs.

Tenn., Loudon.—Loudon County Pike Commsrs., C. H. Bacon, Chrmn., let contract to R. B. Oliver, Maryville, Tenn., for construction Tennessee Post Rd.; bid \$35,275.70; includes earth and rock excavation, broken stone, vitrified clay pipe, corrugated metal pipe, lowering drains, concrete, reinforcing steel and cobble-stone gutters. (Lately noted.)

Tenn., Nashville.—City will construct concrete curbs and sidewalks on portions of following streets: 24th, 25th, Pocahontas, Hillcrest, 5th and 4th Aves., and Parker St.; bids until Apr. 28; H. E. Howse, Mayor.

Tex., Bryan.—City is reported to have voted \$12,000 bonds for street paving. Address The Mayor. (Lately noted.)

Tex., Dallas.—City let contract Seay, Cranfield & Co. at \$150,000 to pave and improve 1st St., Trinity Heights Summit; J. M. Preston, City Engr.

Tex., Denison.—City contemplates voting on \$60,000 bonds to improve streets, extend sewer system and build filter plant. Address The Mayor.

Tex., Ennis.—City will vote on \$40,000 bonds to pave streets; W. D. Farris, Mayor. (See Water-works.)

Tex., Fairfield.—Teague Road Dist. of Freestone county votes May 20 on \$150,000 bonds to improve roads. Address County Commsrs.

Tex., Fort Worth.—Tarrant county, J. A. Mulholland, Auditor, will construct section of 2 mi. of Fort Worth and Haslet Rd. in

Precinct 4; bids until Apr. 27. (See Machinery Wanted.)

Tex., Houston Heights.—City is reported to vote on \$200,000 bonds for paving. Address The Mayor.

Tex., Houston.—Harris County, H. L. Washburn, Auditor, will pave Washington Rd. between Hockley and Waller, distance of 3% mi.; also for 7000 cu. yds. road gravel for same; bids until May 11; plans and specifications in office County Engrs. (See Machinery Wanted.)

Tex., Kaufman.—Precinct No. 1 of Kaufman county defeated \$200,000 road bonds. (Lately noted.)

Tex., Marshall.—Harrison County Road Dist. No. 1 contemplates beginning previously-noted road construction about June 15; \$300,000 available; Geo. L. Huffman, County Judge. (Former item noted to 100 mi. macadam or graveled roads.)

Tex., Mineral Wells.—City, Arthur Howard, Secy., will construct about 100,000 sq. yds. street pavement and 22,000 lin. ft. curb and gutter; bids received on following pavement: Vertical fiber brick, creosoted pine blocks, one course concrete, asphaltic concrete, two coats asphalt macadam; one coat asphalt macadam and water-bound macadam; bids until May 6. (See Machinery Wanted.)

Tex., San Antonio.—Bexar county will construct following roads according to plans and specifications in office of County Highway Engr.: Corpus Christi Rd., 7½ mi.; Pleasanton Rd., 3½ mi.; Applewhite Rd., 4½ mi.; Somerton Rd., 2½ mi.; Quintana Rd., 4 mi.; Pearsall, 4 mi.; Cansville, 8½ mi.; Protarco, 7½ mi.; Culebra, 6½ mi.; Blanco, 8 mi.; Nacogdoches, 6½ mi.; Sequin, 1 mi.; St. Hedwig, 4 mi.; Gonzales, 4½ mi.; Sulphur Springs, 5 mi.; also about 2700 cu. yds. concrete culverts; bids until May 16; V. H. Howard, County Auditor. (See Machinery Wanted.)

Tex., Snyder.—Scurry county, C. R. Buchanan, County Judge, will construct 150 mi. graded dirt road; \$40,000 available; date of opening bids not set. (Bonds lately noted.)

Tex., Victoria.—Victoria County Commsrs. let contract R. P. Fields, Victoria, to construct Inez Rd. under \$125,000 bond issue lately noted voted.

Va., Cumberland.—Cumberland county will construct 1.5 mi. soil or gravel road between Cartersville and Muddy Creek Mills; bids until May 5; plans and specifications at office of County Clerk and of G. P. Coleman, State Highway Commr., Richmond, Va. (See Machinery Wanted.)

Va., Lebanon.—Russell county will construct 3.75 mi. grading from Mew to Scott county line, 1 mi. of grading from C. C. Clays to T. E. B. Fields; also 4.6 mi. macadam from Mew, 1½ mi. from Mud Store to Gilsons, 1 mi. macadam from Mew toward Scott county line, 2.86 mi. macadam from St. Paul to Flink to Mew road near residence of C. W. Banner, and 7.6 mi. macadam from Castlewood to Dante; above roads in Castlewood Dist.; bids until Apr. 27; plans and specifications in office County Engr.; G. P. Coleman, State Highway Commr., Richmond, Va.

W. Va., Beckley.—Raleigh County votes June 9 on \$180,000 bonds to construct roads; M. J. Meadows, County Clerk. (Lately noted.)

W. Va., Charleston.—City will construct 10 to 12 mi. streets; amount available, \$300,000; votes May 18 on bonds for this work; G. S. Brown, City Engr. (Lately noted to vote on \$305,000 bonds for sewers and paving.)

W. Va., Logan.—City will construct 16,000 sq. yds. brick paving with concrete base, 14,500 lin. ft. curb and gutter, and 6250 lin. ft. sanitary storm sewers, 16 manholes and 30 catch-basins; bids until May 9; Robert Bland, Mayor. (See Machinery Wanted.)

W. Va., Wheeling.—Ohio County Commsrs. let contract to R. B. McCulloch to pave National road in pike district.

## SEWER CONSTRUCTION

Ala., Birmingham.—Board of Commsrs. let contract Thos. Worthington, First National Bank Bldg., Birmingham, to construct about 3 mi. proposed sanitary sewers in West End at \$15,236.99; about 16,000 lin. ft. 8 to 12-in. clay pipe sewer, 800 lin. ft. 4-in. T. C. pipe, 3500 cu. yds. rock excavation, 51 manholes, etc.; Julian Kendrick, City Engr.

Ala., Gadsden.—City voted \$30,000 bonds to extend sewer system; 6 to 12-in. vitrified pipe; city may do the work; Chas. L. Marsh, City Engr. (Lately noted.)

Fla., Bradenton.—City let contract Southern Asphalt & Construction Co., Birmingham, Ala., to lay sewers, make house connections and install manholes. S. C. Corbin,

Commr. Public Works; C. A. Brush, Engr. (Lately noted.)

Fla., Manatee.—City votes May 26 on \$25,000 bonds for sanitary and storm sewers; C. J. Major, Mayor. (Lately noted as having surveys made by John Lloyd Minnis, Engr., Tarpon Springs, Fla.)

Ga., Atlanta.—City let following contracts to construct sewers: Gysard Construction Co., Atlanta, at \$892, 2 mi. in Group 2; Cement Stone & Tile Co., Atlanta, at \$7538, 2.02 mi.; F. D. Harvey & Co., Memphis, Tenn., at \$5360, Ormond St. sewer and brick relief sewer.

Ga., Milledgeville.—City proposes 5 mi. sewer construction; surveys being made; Engr., J. B. McCrary Co., Atlanta. (Lately noted.)

Ky., Barbourville.—City granted franchise to C. P. Kennedy to construct sewer system.

La., New Orleans.—City, A. C. Ricks, Commr., will construct culverts, curbs, gutter bottoms and sidewalks in Clout St. from Royal St. to St. Claude Ave., in accordance with plans and specifications in office of City Engr.; bids until Apr. 28. (See Machinery Wanted.)

La., Shreveport.—City postponed indefinitely election lately noted to be held Apr. 15 to vote on \$1,000,000 bonds to construct sewer system and water-works. J. H. Eastman, Mayor. (Lately noted.)

Md., Baltimore.—City will construct certain miscellaneous sanitary lateral sewers under contract No. 134; 25,250 lin. ft. vitrified pipe sewer, 8 in. to 18 in.; 17,700 lin. ft. vitrified pipe house connections; bids until May 6; plans and specifications at office Sewerage Com., Harry W. Rodgers, Secy., 904 American Bldg., Baltimore. (See Machinery Wanted.)

Md., Baltimore.—City let Contract No. 33 to Jas. Ferry & Sons, 2111 Madison Ave., at \$64,945 to construct storm-water sewers; Calvin W. Hendrick, Ch. Engr. (Lately incompletely noted.)

Md., Chestertown.—City voted \$25,000 bonds for sewers and streets. Address The Mayor. (Lately noted.)

Md., Kensington.—City voted \$50,000 bonds to construct sewer system and water-works. Address The Mayor. (Lately noted.)

Md., Mt. Rainier.—City voted \$100,000 bonds for sewer system and water-works. Address The Mayor. (Lately noted.)

Md., Towson.—Baltimore county votes May 19 on \$1,000,000 bonds to construct sewer systems. Address County Comms.

Mo., Fayette.—City is considering construction of sewer system; conferring with Harry Tidd, representing Tuttle & Pike, Engrs., Kansas City, Mo. Address The Mayor.

Mo., Kansas City.—Board of Public Works let contract W. C. Mullins at \$46,567.40 to construct sewer from 41st to 47th St. on State line, and from there to Liberty St.; reinforced monolithic construction; 10 to 36-in. pipe.

Mo., De Soto.—City let contract at \$10,533 to De Soto Grading & Constructing Co. to construct Pratt St. sewer.

N. C., Raleigh.—City, Jas. I. Johnson, Mayor, voted \$8000 bonds for sewer construction.

N. C., Rowland.—City let sewer system contract; J. B. McCrary Co., Engr., Atlanta, Ga. (Bids previously noted.)

N. C., West Asheville, P. O. Asheville.—Board of Aldermen authorized advertising for bids to construct sewer system and water-works; cost of former, \$14,000. (C. E. Waddell, Engr., lately noted submitting report.)

N. C., Winston-Salem.—City votes June 23 on \$50,000 bonds for sewage-disposal plant. O. B. Eaton, Mayor. (Lately noted.)

Okl., Stigler.—City let contract Tonkawa Construction Co., 3233 McGee St., Kansas City, Mo., at \$8265 to extend sewer system and water-works; include 2900 ft. 12-in. vitrified sewer pipe, 8 manholes, settling tank and sludge bed; Engrs., Winters & Dove, Fort Smith, Ark. (Call for bids lately noted.)

S. C., Allendale.—City voted \$65,000 bonds to construct sewer, water and electric-light plants; E. H. Oswald, Chrmn. Com.

Pa., Lancaster.—City, J. M. Hood, or, asks bids until May 27 to construct a recently noted sewer system; about 11 mi. pipe sewers 8 to 15 in. diam.; H. S. Jaudon

Engineering Co., Engr., Box 576, Atlanta, and Box 582, Savannah, Ga. (See Machinery Wanted.)

Tenn., Knoxville.—City, D. G. Leahy, Recorder, will construct about 1418 lin. ft. 10-in. lateral sewer from Third Creek main sanitary sewer eastwardly to 16th St. and Forest Ave.; vitrified pipe; bids until May 1; J. B. McCalla, City Engr. (See Machinery Wanted.)

Tenn., Nashville.—City will construct 10-in. clay pipe sewer in Alley No. 644, and 12 and 10-in. clay pipe sewer in Alleys Nos. 658 and 602; bids until Apr. 28; H. E. Howse, Mayor.

Tenn., Copper Hill.—City will construct sewerage and water systems; bids until May 5; Boon Crawford, Mayor. (See Water-works and Machinery Wanted.)

Tex., Dallas.—City voted \$50,000 bonds to extend sanitary sewer system. Address The Mayor. (Lately noted.)

Tex., Denison.—City contemplates voting on \$60,000 bonds to extend sewer system, improve streets and build filter plant. Address The Mayor.

Tex., Ennis.—City will vote on \$30,000 bonds to purchase and extend sewer system. W. D. Farris, Mayor. (See Water-works.)

Tex., Houston.—City, E. B. Bonney, Secy., will construct sanitary sewers on Robin St. from Helmer to Smith Sts., and Gano St. from Loraine to Waverly Sts.; bids until May 4; E. E. Sands, City Engr. (See Machinery Wanted.)

Tex., Houston.—City will lay sewer at Montgomery Tunnel; estimated cost \$12,936; E. E. Sands, City Engr.

Tex., Kingsville.—City let contract Hamilton Bros. to construct sewer systems in subdivision adjacent to Kingsville; cost about \$15,000.

Tex., Wharton.—City will construct sewer on Burleson St.; day labor; G. S. Gordon, Mayor. (Lately noted.)

Va., Richmond.—City will construct sewer in Hull St. between 7th and 12th Sts.; bids until Apr. 30; Chas. E. Bolling, City Engr. (See Machinery Wanted.)

W. Va., Adamston.—City will issue \$20,000 bonds for water works. Address The Mayor.

W. Va., Charleston.—City will construct 6 mi. 8 in. to 6 in. sewers; approximate cost \$175,000; votes May 18 on bonds for this work; S. G. Brown, City Engr. (Lately noted to vote on \$365,000 bonds for sewers and paving.)

W. Va., Logan.—City will construct 6250 lin. ft. sanitary storm sewers, and will include 16 manholes and 30 catch-basins, etc.; bids until May 9; Robert Bland, Mayor. (See Road and Street Work and Machinery Wanted.)

### TELEPHONE SYSTEMS

Fla., Orange City.—Orange City Telephone Co., capital stock \$5000, Incptd.; J. B. Seidel, Prest. and Gen. Mgr.; M. C. Whelden, V.-P.; J. L. True, Secy.-Treas.

Ga., Savannah.—Southern Bell Telephone & Telegraph Co., Atlanta, Ga., will erect lately-noted annex; 3-story brick building of mill construction; cost \$25,000.

Okl., Carmen.—Bethel Telephone Co., capital \$1000, Incptd. by A. H. Bullis, J. T. Jenkins and H. A. Livick.

S. C., New Zion.—New Zion Telephone Co., capital \$1500, Incptd.; E. B. Gamble, Prest.; W. C. Plowden, V.-P.; P. M. Gibbons, Secy.; C. W. Lavender, Treas.

S. C., Orangeburg.—Southern Bell Telephone & Telegraph Co. (main office, Atlanta, Ga.) contemplates installing common battery system to replace present magneto system and placing wires in business section underground.

S. C., Turbeville.—Turbeville Telephone Co., capital \$15,000, Incptd. by D. E. Turbeville, M. J. Morris and D. L. Green.

Tenn., McMinnville.—Home Telephone Co., capital stock \$5000, Incptd. by L. B. Gilbert, W. C. Lorance, T. J. Robinson and others.

Tenn., Nolensville.—Farmers' Exchange Telephone Co., capital stock \$3000, Incptd. by E. S. Williams, J. A. Williams, D. R. Gooch and others; construct telephone system Nolensville to Mill Creek.

Va., Norwood.—Nelson County Telephone Co., S. M. Galloidy, Prest., Buffalo Station, Va., will construct 20 mi. telephone line. (Lately noted Incptd.)

### TEXTILE MILLS

N. C., Belmont—Fine Yarns.—National Yarn Mills, authorized capital \$125,000, Incptd. by R. L. Stowe, A. C. Lineberger, D. E. Rhine and others; will install about 10,000 spindles to spin combed peeler yarns; plant to cost about \$200,000; no plans drawn or contracts let.

N. C., Selma—Hosiery Yarn.—Selma Cotton Mill, lately noted to increase capacity by installing machinery to cost \$75,000, contemplates 5280 additional spindles balanced on 28 hosiery yarns; considering electric drive. (See Machinery Wanted.)

S. C., Greenville—Sheetings, etc.—Brandon Mills will increase capital stock from \$1,500,000 to \$1,750,000; has 86,016 spindles, 2100 broad looms, 140 cards, etc.; capital increase is for financial purposes.

S. C., Tucapau—Print Cloth.—Tucapau Mills will hold meeting May 12 to consider increasing capital stock from \$300,000 to \$600,000.

Tenn., Memphis—Linters, etc.—Memphis Cotton Mfg. Co., John P. Bullington, Treas., Central Bank Bldg., is planning to engage engineer to construct and equip mill to bleach linters and mfr. cellulose; company's organization, etc., previously noted. (See Machinery Wanted.)

Tex., Dallas.—City voted \$50,000 bonds to extend sanitary sewer system. Address The Mayor. (Lately noted.)

Tex., Denison.—City contemplates voting on \$60,000 bonds to extend sewer system, improve streets and build filter plant. Address The Mayor.

Tex., Dallas.—City voted \$50,000 bonds to extend sanitary sewer system. Address The Mayor. (Lately noted.)

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Tex., Dallas.—City voted \$50,000 bonds to extend sanitary sewer system. Address The Mayor. (Lately noted.)

Mo., Dexter, City, Webb Watkins, Mayor, asks bids until May 18 to construct water-works; about 6 mi. 4 to 8-in. cast-iron pipe, 34 hydrants, 24 valves with boxes, 70,000-gal. tower tank and pumping station complete; separate bids on 10-in. deep well lately noted; Frank L. Wilcox, Engr., Syndicate Trust Bldg., St. Louis, Mo. (See Sewer Systems and Machinery Wanted.)

N. C., Durham.—City voted \$500,000 bonds to purchase plant of Durham Water Co. and build plant on Flat River. Gilbert C. White, Engr., Charlotte, N. C., prepared cost estimates. Address The Mayor. (Lately noted.)

N. C., Lumberton.—City contemplates installing filter and purifying plant. Address The Mayor.

N. C., Rowland.—City let water-works contract; J. B. McCrary Co., Engr., Atlanta, Ga. (Bids previously noted.)

N. C., West Asheville, P. O. Asheville.—Board of Aldermen authorized advertising for bids to construct water-works and sewer system; estimated cost of former, \$30,000. (C. E. Waddell, Engr., lately noted as submitting report.)

N. C., Winston-Salem.—City votes June 23 on \$50,000 bonds to improve water-works. O. B. Eaton, Mayor. (Lately noted.)

Okl., Boswell.—City voted \$25,000 bonds to construct water-works. Address The Mayor. (Lately noted.)

Okl., Edmond.—City, J. F. Baldwin, Clerk, will drill well; bids until May 7. (See Machinery Wanted.)

Okl., Henryetta.—City will make improvements to water-works; construct steel and concrete intake tower, water-main extensions, brick power-house; install hydrants and valves, 750 G. P. compound duplex steam pump, 100 H. P. boiler, feed-water heater, boiler-feed pump and piping; bids until May 5; plans and specifications in office of Benham Engineering Co., Consult. Engrs., Oklahoma City; previously noted as voting \$20,000 bonds. (See Machinery Wanted.)

Okl., Morris.—City voted \$42,000 bonds for water-works improvement; Benham Engineering Co., Consult. Engr., 435 American National Bank Bldg., Oklahoma City; will prepare plans; construction in May. (Lately noted.)

Okl., Stigler.—City let contract Tonkawa Construction Co., 3233 McGee St., Kansas City, Mo., at \$8265 to extend water-works and sewer system; include sedimentation basin, 20x60 ft., and dosing apparatus at pumping station; Engrs., Winters & Dove, Fort Smith, Ark. (Call for bids lately noted.)

S. C., Allendale.—City voted \$65,000 bonds to construct water, sewer and electric-light systems; E. H. Oswald, Chrmn. Com.

Tenn., Copper Hill.—City will construct water-works and sewers; bids until May 5; Boon Crawford, Mayor. (See Machinery Wanted.)

Tenn., Maryville.—City is having plans prepared by R. C. Huston Co., Memphis, for water-works; cost \$50,000; Wm. A. McTeer, Recorder.

Tenn., McMinnville.—McMinnville Crystal Ice & Fuel Co. is installing water system; deep well; 50-ft. tower; 15,000-gal. tank. (See Ice and Cold-storage Plants.)

Tex., Corpus Christi.—City will vote on proposition to secure additional water supply; Alexander Potter, Engr., New York, prepared plans; Roy Miller, Mayor.

Tex., Denison.—City contemplates voting on \$60,000 bonds to build filter plant, extend sewer system and improve streets. Address The Mayor.

Tex., Ennis.—City will vote on \$30,000 bonds to extend and improve water-works, \$30,000 to purchase and extend sewer system, \$40,000 to pave streets and \$80,000 for schools; W. D. Farris, Mayor. (Lately noted.)

Tex., Smithville.—Smithville Water & Power Co. will erect engine-house and install additional engine.

Tex., Whitewright.—City voted \$6000 bonds for water-works. Address The Mayor.

Tex., Whitewright.—City is reported to have voted \$6000 water-works bonds. Address The Mayor.

W. Va., Adamston.—City will issue \$20,000 water and sewer bonds. Address The Mayor.

### WOODWORKING PLANTS

Ark., Benton—Chair Materials.—T. Manning, Womble, Ark., will establish plant.

Ark., East Sylamore—Staves.—Chess & Wymond Co. (main office, Louisville, Ky.) is reported to install finishing stave plant.

April 30, 1914.]

## MANUFACTURERS RECORD.

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Ga., Albany—Sash, Doors, etc.—Albany Sash, Door & Lumber Co. will organize and install equipment. (Lately noted Incptd., \$200 capital stock, by F. B. Leonard and R. B. Saunders.)

Ga., Augusta—Crates, etc.—G. W. Green, Jr., will establish plant to mfre. crates, etc.; site 3½ acres; plant cost about \$40,000.

Ga., Pineora—Barrels—Georgia Barrel & Lumber Co. will establish barrel and stave mill. (See Lumber Manufacturing.)

Ky., Jackson—Staves—J. E. Lang will install stave machinery.

Ky., Louisville—Cooperage—Gambrinus Cooperage Works, 930 Mason St., let contracts to erect plant to mfre. casks, tanks, etc.; fireproof construction; cost \$10,000; Meyer & Breuner, Archts., Louisville; machinery purchased. (Philip Sengel & Son lately noted to erect works.)

Ky., Oscaloosa—Staves—Valley Creek Lumber Co., 526 Child St., Rochester, N. Y., installed machinery to mfre. staves and lumber. (Lately noted at Ky., Mayking.)

La., Alexandria—Shingles, etc.—Cooper Lumber Co., Jas. Cooper, Prest., let contract for band, shingle and lath mill. (See Lumber Manufacturing.)

La., New Orleans—Sash, Doors and Blinds—Miller-Goll Mfg. Co. increased capital stock to \$50,000.

Md., Baltimore—Furniture—Bagby Furniture Co., Exeter and Fleet Sts., let contract John Hiltz & Sons, 3 Clay St., Baltimore, to erect office and warehouse building addition to plant; 6 stories; 70x100 ft.; ordinary construction; cost \$35,000. (Lately noted.)

N. C., High Point—Furniture—Sam'l. B. Coffin, Inc., will probably rebuild factory reported burned at loss of \$40,000.

N. C., King—Buggies—J. H. Truelove of East Bend, N. C., purchased building; will remodel and equip as buggy factory.

Tenn., Chattanooga—Trunks—G. E. MacKenney and J. H. Earle are reported to enlarge trunk factory.

Tenn., Memphis—Veneer—Stimson Veneer & Lumber Co. organized; J. V. Stimson, Prest.; B. F. Katterhenry, V.-P.; Robt. C. Stimson, Secy.-Treas.; will operate plant to mfre. hardwood lumber and rotary veneers; lately noted Incptd., \$100,000 capital. (See Machinery Wanted.)

Tex., Fort Worth—Wagons—Fort Worth Waggon Mfg. Co. (J. W. Mitchell and others) purchased Fort Worth Wagon Factory for \$60,000; will enlarge and improve. (Lately noted Incptd. with \$150,000 capital.)

Va., Charlottesville—Veneering, Baskets, etc.—L. A. Funk and Leslie Tompkins are interested in established plant to mfre. veneering, baskets, crates, etc.; secured property on 4th St. near Preston Ave.; ordered machinery.

## FIRE DAMAGE

Ala., Birmingham—Birmingham Laundry Co.'s plant at 213-215 22d St., loss \$20,000; building owned by A. J. Taylor of Hurtsboro, Ala.

Ala., Jackson—Bigbee Ice & Development Co.'s plant; loss \$5000.

Ala., Louisville—Jno. T. Bell's residence in Barbour county between Louisville and Clayton; loss \$8000.

Ala., Shades Valley, R. F. D. No. 4 from Birmingham—Holcomb Bros.' dairy barns.

Ark., Deavall Bluff—Penrod-Jordan-McCowan Lumber Co.'s sawmill.

Ark., Warren—Walter's Industrial Institute; loss \$7000.

D. C., Washington—Western High School; loss, including library and laboratory equipment, \$300,000; Harry O. Iliae, Secy. Board of Education.

Fla., Micanopy—J. W. May & Co.'s building, owned by Dr. J. D. Watkins; loss \$15,000.

Ga., Adel—C. D. Paxson's sawmill.

Ga., Albany—Planters' Oil Co.'s cotton-seed-oil mill; estimated loss \$50,000.

Ky., Graves—W. H. Hester's residence.

Ky., Hickman—Mrs. Alice Amberg's residence; loss \$6000.

La., Oakdale—A. J. Odom & Son's store; loss \$12,000.

Md., Curtis Bay—Atlantic Fertilizer Co.'s plant, operated by Swift & Co. of Chicago; Baltimore offices, 36 Stock Exchange Bldg.; estimated loss, \$400,000. United States Fertilizer Co.'s plant, operated by Sulzberger & Sons, 45th St. and 1st Ave., New York; Baltimore offices, 401-407 Phoenix Bldg.; estimated loss, \$300,000.

Md., Denton—Wm. J. Carroll's store; Harry Scott's stable.

Md., Riderwood—Residence owned by Howard L. Rider and occupied by Geo. R. Summer; loss \$3000.

Miss., Gulfport—Stewart Sash, Door & Blind Co.'s plant; loss \$35,000.

Miss., Hazlehurst—City Pharmacy's building; loss \$4000.

Miss., Jackson—Ginhouse No. 1 at Parchman State Convict Farm. Address Supt. Gathings.

Miss., Lucedale—Fine Mercantile Co.'s building; Dr. W. E. Ratliff's residence; loss \$5000.

N. C., Gold Hill—J. C. Prather's flour mill; loss \$6500.

N. C., High Point—Sam B. Coffin's furniture factory, loss \$43,000; A. S. Ramsey's store and dwelling; J. G. Leonard's dwelling, loss \$3000.

N. C., Mount Airy—R. M. Coltrane's wood-working plant; estimated loss \$5000; building owned by R. H. Leonard.

N. C., Warsaw—Residence owned by Jas. Fussell of Bowden, N. C.; loss \$3000.

S. C., Mount Pleasant—City votes June 9 on \$18,000 bonds to construct water-works. Address The Mayor. (Lately noted.)

Tenn., Dyersburg—Lake County Mfg. Co.'s cotton gin and seedhouse.

Tenn., Lebanon—M. A. Maxey's dwelling on Hatton Ave.; loss \$4000.

Tenn., Memphis—H. J. Baum's residence at 302 N. Garland Pl.; loss \$3000.

Tenn., Nashville—Residence of John C. Adamson, Cash. State Bank & Trust Co.; loss \$5000.

Tenn., Tulsa—Hardwood Mfg. Co.'s main building and band-saw mill; estimated loss, \$20,000; Hugh Ledford, owner.

Tenn., Nashville—Battle Clark's residence at 1811 Acklen Ave.; loss about \$4000.

Tenn., Pulaski—Newt. H. White's residence; loss \$5000.

Tex., Jacksonville—Goodson Bldg. at Main and Commerce Sts., occupied by several business establishments and printing plant of Daily Progress (loss \$10,000 on equipment); total loss, \$65,000 to \$75,000.

Tex., Wadler—Building owned by J. Amosky of Houston, Tex., and occupied by Dietze, Davis & Co.; loss \$5000.

Va., Buena Vista—Buena Vista Extract Co.'s plant; estimated loss, \$20,000.

Va., Christiansburg—Banner Coal Co.'s building.

Va., Orange—Orange Livery Stable and warehouse occupied by J. R. Grymes and J. E. Long; loss \$25,000.

Va., Portsmouth—Portsmouth Woodworking Corp.'s plant; estimated loss \$45,000.

Va., Suffolk—Twelve tenement-houses owned by W. J. E. Bullock.

reported to erect clubhouse at cost of \$50,000; S. J. McCarthy, Chmn. Building Com.

Tenn., Nashville—Grandview Hall Co., with \$3000 capital, Incptd. by J. M. Whitsett, W. A. Brown, James H. Wilson and others to erect lodge hall and store building.

Tex., Alice—A. F. and A. M. and City Council are reported considering erection of building for city offices and lodgerooms.

Tex., Austin—Ancient Free and Accepted Scottish Rite Masons are reported to extend \$25,000 for improvements to building.

Tex., Comfort—Order of Hermann Sons accepted plans by Arthur J. Hermann, San Antonio, Tex., for home for aged and orphans; 2 stories and basement; fireproof; cost approximately \$50,000. (Lately noted.)

Va., Martinsville—Building Comm., A. F. & A. M., C. T. Womack, Chmn., receives bids until May 9 to erect Masonic Temple; plans and specifications at office of G. R. Ragan, Archt., Watt and Clay Bldg., Roanoke.

## BANK AND OFFICE

Ark., Fort Smith—Fort Smith Bank & Trust Co., Dr. W. R. Brooksher, Prest., will expend \$3000 or \$4000 to remodel building as bank. (Lately noted to expend \$25,000 to remodel building.)

Ark., McGehee—H. F. Bailey, Monticello, Ark., is reported to erect building at 2d and Orange Sts.; 2 stories; brick; for stores, offices and lodgerooms.

D. C., Washington—Kendall & Smith, Archts., Southern Bldg., state building of additional stories on Southern Bldg., indefinitely postponed. (Previously noted.)

Fla., St. Petersburg—St. Petersburg Investment Co., H. Walter Fuller, Mgr., Central Ave. and 4th St., is reported to erect building adjoining Plaza Theater; 2 stories; construction to conform to theater building.

Ga., Savannah—Citizens' & Southern Branch Bank will have plans ready for bids May 15 to erect 5-story 30x60-ft. addition to building; Mowbray & Ullinger, Archt., 30 W. 38th St., New York. (Lately noted.)

Ky., Carlisle—Exchange Bank of Sharpsburg is reported to erect building on Main St.

Ky., Hazard—E. Kelley will erect office and store building. (See Stores.)

Ky., Louisville—Fidelity & Columbia Trust Co. will expend \$20,000 to alter building at 25 S. 4th St.

Md., Mt. Airy—First National Bank will erect building to replace structure lately noted burned.

Okla., Bartlesville—Sutton-Keeler Co. will expend \$100,000 (cost without mechanical equipment) to erect bank and office building; 49x40 ft.; 6 stories; fireproof construction; tar and gravel roof; electric lighting; contract not let; Chas. H. Diefender, Archt., St. Louis; contract lately noted let to McGregor & Hingle, Bartlesville. (See Machinery Wanted.)

Tenn., Chattanooga—Chas. E. Bearden, Archt., Chattanooga, advises bids for American Trust & Banking Co.'s building will probably not be opened before latter part of May. (Lately noted to receive bids until Apr. 4.)

Tenn., Dyersburg—Dyersburg Lodge No. 712, B. P. O. E., contemplates erecting office, lodge and store building. (See Association and Fraternal Bldgs.)

Tenn., Lebanon—F. C. Stratton will not erect office building as lately reported.

Tenn., Memphis—Commercial Trust and Savings Bank receives bids to about a week to raise building at Main St. and Union Ave. and erect 20-story structure; bids to be for either first 10 stories or entire structure; stone, terra-cotta and impervious brick; 22 offices on each floor; corridors wainscoted with marble to height of 7 ft.; marble floors; 50x149 ft.; construction to begin June 1; completion by Sept. 1, 1915; safe deposits in basement; machinery in sub-basement; Chas. O. Pfell, Archt., 1403 Tennessee Trust Bldg., Memphis. (Previously noted.)

Tenn., Nashville—V. E. Schwab has plans by Marr & Holman, Nashville, for building; 5 stories and basement, of which 3 stories will be fitted as offices for physicians; 175x170 ft.; steel and concrete; terra-cotta trimmings; 4 electric elevators; gravel roof; steam heat; 12 stores on ground floor with tile floors, white enamel walls and woodwork; refrigerating system; vacuum cleaning system; cork floors in corridors; toilet and operating rooms with sanitary composition floors and white tile wainscoting; steel skeleton; cost about \$200,000. (Lately noted.)

Tex., Dallas—Louis Blaylock is reported to erect building at Harwood and Jackson Sts.,

## BUILDING NEWS

## BUILDINGS PROPOSED

## APARTMENT-HOUSES

D. C., Washington—F. T. Sanner is having plans prepared by F. R. White & Co., 1791 Park Rd. N. W., Washington, for 4-story brick apartment-house at 1930 New Hampshire Ave.; cost \$40,000; construction by owner.

Fla., Fort Myers—A. J. Moore will erect store and apartment building.

Fla., Jacksonville—B. Weiss will erect 2-story frame apartments on Phelps St. between Market and Liberty Sts.; also 1-story frame garage; cost \$5000.

Fla., Tampa—L. W. Smith, 102 Crescent Pl., contemplates erecting two 5-story apartment-houses; 200x200 ft.; white enamel brick and stone; desires correspondence with architects relative to plans.

Mo., Kansas City—Chas. Well will erect store and apartment building. (See Stores.)

Mo., St. Louis—Clement Realty & Building Co. will erect 11 two-story flats and 2 two-story tenements at 534-58 and 560-66 Eller St.; cost \$40,400.

Mo., St. Louis—Chas. F. Levey will erect two 3-story tenements at 5605 Waterman St.; cost \$50,000; construction by owner.

Mo., St. Louis—Philip Chaney will erect flat on Giles Ave.

Mo., St. Louis—F. Hortleder will erect two 2-story tenements at 3808 and 3832 McRae St.; cost \$9000.

Mo., St. Louis—Sam S. Schuster will erect five double flat buildings at Goodfellow and Garfield Aves. to cost \$40,000.

Mo., St. Louis—Trade Realty Co. will erect 3-story tenement at 3861 De Tonty St.; cost \$12,500; construction by owner.

Mo., St. Louis—Victor E. Rhodes will erect 6-family apartment-house in Washington Heights.

N. C., Charlotte—C. M. Bridgers is having plans prepared by F. L. Bonfoey, Charlotte, for apartment-house at 700 N. College St.; brick; slate roof; steam heat; 4 suites.

S. C., Greenville—Gillfillin & Houston, Agts., contemplate erecting apartment-house to cost \$60,000; invite architects to submit plans and specifications. (See Machinery Wanted.)

Tenn., Nashville—A. S. Weinbaum will erect brick apartment-house on 25th Ave.; cost \$40,000.

Tenn., Nashville—B. F. Kennedy will erect brick flat on Division St. near 21st Ave.; cost \$7000.

Tex., El Paso—Jennings & Wood will erect apartment-house. (See Stores.)

Tex., El Paso—W. E. Lamberts has plans by G. O. Everman, Box 949, for apartment-house at 1520 Upson Ave.; 2 stories; 46x92 ft.; 32 rooms; cost (without mechanical equipment) \$20,000; ordinary construction; composition roof; steam heat. (Lately noted letting contract.)

Tenn., Houston—C. B. Brace will erect 2-story apartment-house at Anita and Albany Sts.; cost \$6000.

Va., Norfolk—C. W. Simmons will erect store and apartment-house. (See Stores.)

Va., Richmond—Allen J. Dance will erect two 3-story apartment-houses; brick; cost \$42,000.

Va., Richmond—Jas. Alston Cabell will erect 2-story brick tenement-house on Main St. between Cherry and Linden Sts.; cost \$5500.

Va., Richmond—South Richmond Apartment Co., \$100,000 authorized capital; Clarence Vaden, Prest.; A. N. Pettigrew, Secy.; is erecting apartment-house at 13th and Porter Sts.

## ASSOCIATION AND FRATERNAL

Ala., Birmingham—B. P. O. E., Jno. S. Leedy, Exalted Ruler, is considering erecting addition; cost \$25,000 to \$30,000.

Ala., Birmingham—Birmingham Lodge No. 79, B. P. O. E., pms to erect addition to building at 8th Ave. and 19th St.; will provide swimming pool, dance pavilion, etc.

Ark., McGehee—H. F. Bailey, Monticello, Ark., is reported to erect store, office and lodge building. (See Bank and Office.)

Fla., Callahan—Ancient Free and Accepted Masons are reported to erect 2 or 3-story brick building to replace burned structure.

Fla., Monticello—A. F. and A. M. are reported to erect building; cost \$6000 to \$10,000.

Fla., Jacksonville—Young Men's Hebrew Association, Louis Smetana, Prest., will have plans completed in 2 or 3 weeks to erect building. (Y. M. H. A. and B'nai Israel lately noted to erect building.)

Ga., Athens—Plans and specifications for Y. M. C. A. building may be had by applying to J. W. Burnett, City Engr., and depositing \$25; notice will be given prospective bidders 30 days in advance of time set for receiving bids to erect building. (Lately noted.)

Md., Baltimore—B. P. O. E. invited John T. Brady & Co., Builders' Exchange, Baltimore, to submit bid to erect building. (Other contractors lately noted invited to bid.)

N. C., Winston-Salem—Salem Lodge, I. O. O. F. is having plans prepared by L. A. Belton, Charlotte, N. C., for 2 additional stories and remodeling building for lodge purposes; \$20,000. (Lately noted.)

Tenn., Coal Creek—I. O. O. F. invites architects to submit plans for building to contain lodgerooms and opera-house; 37x50 ft.; brick, wood and steel; tin roof; cost \$6000. Address proposals to W. R. Riggs. Lately noted. (See Machinery Wanted.)

Tenn., Dyersburg—Dyersburg Lodge No. 712, B. P. O. E., contemplates erecting building for lodge, stores and offices; plans not definite. (Lately reported.)

Tenn., Nashville—Knights of Columbus

to be occupied by Dallas Gas Co.; 2 stories; 40x95 ft.; semi-fireproof; cost \$50,000; 1-story workshop in rear 30x50 ft.

Tex., Harwood.—First State Bank of Harwood, Dr. L. G. Dexter, Pres., will erect 1-story brick building.

Tex., Port Arthur.—Merchants' State Bank will erect store and office building. (See Bank and Office.)

Tex., San Augustine.—First National Bank is having plans prepared for building to replace burned structure; 1 story.

Tex., San Augustine.—John Thompson will erect store and office building. (See Stores.)

### CHURCHES

Ala., Birmingham.—Walker Memorial Methodist Church at Elyton will erect parsonage.

Ala., Guntersville.—Methodist Church has plans by R. H. Hunt, James Bldg., Chattanooga, for building; cost \$20,000. (Previously noted.)

Ala., Lafayette.—M. E. Church South opens bids about May 1 to erect building; 50x100 ft.; slate roof; heating and lighting not determined; cost \$13,000; E. A. Zobel, Archt., Lafayette; address proposals to E. W. Willingham. (Lately noted.)

Ala., Northport.—Methodist church has plans by E. J. Ostling & Son, Tuscaloosa and Montgomery, Ala., for building; 42x80 ft.; basement; furnace heat; cost \$10,500.

Ark., Rogers.—Presbyterian church, Rev. J. H. Kirkpatrick, pastor, will expend \$14,000 to erect building; ordinary construction; flat composition roof; steam heat; electric lighting; A. V. Clark, Archt., Rogers; day labor; lately noted. (See Machinery Wanted.)

Ala., Tuscaloosa.—First Presbyterian Church has plans by R. H. Hunt, James Bldg., Chattanooga, for building; cost \$40,000.

Fla., Tallahassee.—First Baptist Church will expend \$22,500 to erect building; 50x110 ft.; ordinary construction; metal roof; gravity steam heat; indirect electric lighting; C. W. Bulger & Son, Archts., 1114 Praetorian Bldg., Dallas; date of opening bids not determined. (Lately noted.)

Ga., Atlanta.—Martha Brown Memorial Methodist Church will erect building at Moreland and Metropolitan Aves. Address The Pastor.

Ga., Antioch.—Antioch Methodist Episcopal Church, Rev. Chas. W. Curry, pastor, Adel, Ga., will enlarge and remodel building.

Ky., Henderson.—Methodist Episcopal Church will erect building. Address The Pastor.

Ky., Okolona, R Sta., Louisville.—Catholic congregation will erect church and school. Address The Pastor.

Md., Baltimore.—St. John the Baptist Catholic Church, Rev. Jos. Leituvinkas, pastor, Pacu and Saratoga Sts., will improve building; plans include changing facade, construction of steeple and tower 2 or 3 stories.

Md., Manchester.—Lutheran Church will erect building. Address The Pastor.

Miss., Hattiesburg.—First Baptist Church has plans by R. H. Hunt, James Bldg., Chattanooga, for Sunday-school addition; cost \$15,000; will soon let contract.

N. C., Newton.—Baptist Church will erect building; cost several thousand dollars. Address The Pastor.

N. C., Winston-Salem.—Grace Methodist Episcopal Church, Rev. J. S. Hatt, pastor, plans to erect building to cost \$15,000 to \$20,000.

Okl., Durant.—First Presbyterian Church has plans by Jewell Hicks, Durant, for building; cost about \$20,000; bids received until Apr. 30. (Lately noted.)

Okl., Tulsa.—Grace Methodist Episcopal Church receives bids until May 1 to erect building; brick; 50x90 ft.; seating capacity 800; cost about \$12,000; plans and specifications at office of John N. Starr, Archt., 17-19 Nebraska Bldg., Tulsa. (Lately noted.)

Okl., Tulsa.—Lutheran Church, Rev. C. W. Sifford, pastor, is having plans prepared by George Winkler, Tulsa, for building at 5th St. and Elwood Ave.; 40x80 ft.; brick; seating capacity 750; cost about \$12,000.

S. C., Cameron.—Cameron Evangelical Church will erect building; 40x60 ft.; brick or granite; cost \$12,000 to \$15,000; Jas. P. Dantzler, T. S. Haigler, D. W. Haigler and Rev. J. W. Oxner, Building Com.

S. C., McColl.—McColl Baptist Church will erect building; Dr. J. R. Bivens, J. E. Willis and others, Bldg. Com.

Tenn., Chattanooga.—Highland Park Baptist Church, Rev. W. S. Keese, pastor, 210 Kirby Ave., has plans by W. H. Sears, Chat-

tanooga, for building; brick; roofing not determined; probably steam heat; electric lighting; date of opening bids not definite. (Lately noted.)

Tenn., Cleveland.—Inman Street Baptist Church, Rev. Sam White, pastor, will erect building at Church and Central Sta.; cost about \$3000.

Tenn., Concord.—Methodist Church will erect building. Address The Pastor.

Tenn., Whiteville.—First Methodist Church has plans by John Gaisford, Memphis, for building; brick; stone columns; S. N. Dunham, Chrmn. Building Com.

Tex., Alto.—Baptist church will erect building; cost \$12,000. Address The Pastor.

Tex., Beaumont.—St. Mark's Episcopal Church is having plans prepared by Cram & Ferguson, 2 W. 47th St., New York, for church and parish-house; cost about \$61,000. (Lately noted.)

Tex., El Paso.—Mt. Sinai congregation plans to erect temple; cost \$65,000. Address the Pastor.

Tex., Hondo.—Baptist church, W. L. Windrow, Chrmn. Building Com., will expend \$15,000 to erect building; 62x77 ft.; brick and stone trimmings; metal tile shingle roof; jacketed stoves; electric lighting; concrete sidewalks, about 8x210 ft.; J. M. Hyde, architect, Brenham, Tex.; lately noted to receive bids until Apr. 27. (See Machinery Wanted.)

Tex., Quanah.—Baptist Church will erect building; cost, including furnishings, \$30,000. Address The Pastor.

Tex., Uvalde.—Presbyterian congregation will erect building. Address The Pastor.

Va., Ivor.—Baptist Church opens bids about May 15, through H. L. Cain, Archt., Main St., Bank Bldg., Richmond, to erect church building and Sunday-school addition; 50x50 ft.; ordinary construction; slate and Johns-Manville roofing; hot-air heat.

Va., Lynchburg.—First Unitarian Church, Dr. J. R. Pennington, pastor, Arlington Pl., Rivermont Ave., will erect building; fire-proof; architect not selected.

Va., Richmond.—Calvary Baptist Church, Rev. C. A. Jenkins, pastor, 716 Hawthorne Ave., Ginter Park, Richmond, is considering erection of church building and Sunday-school room; seating capacity 1200; site 97x135 ft.; cost (without mechanical equipment) \$30,000 to \$40,000; brick; slate roof; heating undecided; probably gas and electric lighting; architect not selected. (See Machinery Wanted.)

W. Va., Point Pleasant.—Christ Episcopal Church has plans by Howell & Thomas, Columbus, O., for church building and parish-house; former, 27x81 ft.; latter, 20x60 ft.; cost \$15,000; brick walls; wood floor and ceiling; slate roof; hot-air heat; bids opened some time in June or July; address proposals to C. F. Magee.

W. Va., Weston.—Presbyterian church, J. S. Vandervort, Chrmn. of Comm., opens bids May 4 to erect building; 85x47 ft.; slate roof; hot-air or steam heat; electric lighting; cost \$10,000; Stephen W. Ford, Archt., Clarksburg, W. Va. (Previously noted.)

### CITY AND COUNTY

Ky., Hickman—Jail.—City is reported to soon let contract to erect jail; 2 stories; brick; cost \$12,000 to \$15,000. Address The Mayor.

Ky., Hopkinsville—Sanitarium.—Christian County Commsrs. will erect tuberculosis sanitarium.

La., New Orleans—Sheds.—Board of Port Commsrs., Robert G. Guerard, Prest., will erect proposed Pauline St. Shed; bids received until Apr. 29 for fabrication and erection of structural steel and cast iron; L. H. Guerin, Consult. Engr., 1002 Perrin Bldg., New Orleans.

Miss., Meridian—City Hall.—City is having plans prepared by P. J. Krouse, Meridian, for city hall; 7 stories; auditorium to seat 3500. (Lately noted.)

Mo., Kansas City—Police Station.—Police Commsrs. propose erection of central station to replace Walnut St. and Southwest Blvd. stations.

Mo., New Madrid—Jail, etc.—New Madrid County Court receives bids until June 8 to erect jail, etc., according to plans and specifications in office of County Clerk. (See Courthouses.)

N. C., Raleigh—Fire Station.—City, Jas. I. Johnson, Mayor, voted \$6000 bonds for proposed fire station; brick; J. A. Salten, Archt., Raleigh; R. B. Seawell, Engr., Raleigh; date of opening bids not set.

Okl., Tulsa—Park Buildings.—Park Commissioners, City Hall, will erect buildings in

Owen's and Central parks; M. C. Cross, Archt., 18 Nebraska Bldg., Tulsa.

Tenn., Chattanooga—Police Headquarters. J. H. Warner, Commr., will alter municipal building for police headquarters; cost \$6000; bids opened May 1; plans and specifications at office of Snoddy & Bull, Archts., 815 James Bldg., Chattanooga.

Tenn., Knoxville—Library.—Lawson-McGhee Library Trustees will erect library. (See Miscellaneous Structures.)

Fla., Apopka—City Hall.—City is reported to vote on bonds to erect city hall, etc. Address The Mayor.

Tex., Alice—City Hall.—A. F. and A. M. and City Council are considering erection of city hall and lodge building.

### COURTHOUSES

Mo., New Madrid.—New Madrid County Court receives bids until June 8 to erect 3-story fireproof brick-faced courthouse; stone and terra-cotta trimmings; composition roof, about 7200 sq. ft.; also bids for jail building on same date and let contract for courthouse and jail as whole; Lindsay Architectural Co., Sikeston, Mo., and Falls City Construction Co., Louisville, Ky., Asso. Archts.

Mo., Richmond.—Ray County Commsrs. receive bids until May 4 to erect courthouse at cost of about \$100,000; R. Warren Roberts, Archt., Chillicothe, Mo. (Lately noted.)

### DWELLINGS

Ala., Birmingham.—Otto Marx has plans by Wm. C. Weston, Birmingham, for dwelling; cost (without mechanical equipment) \$30,000; fireproof; tile roof; hot-water heat; date of construction not determined. (Lately noted.)

Ala., Caldwell.—John F. Howard will rebuild residence lately burned; 3 rooms and L; frame; paper or shingle roof; cost \$3000 to \$4000.

Ala., Elba.—W. W. Sanders will erect dwelling; plans not made.

Ala., Hurtsboro.—C. E. Borom will erect \$3000 residence.

Ala., Tuscaloosa.—Hugh Prince has plans by E. J. Ostling & Son, Tuscaloosa and Montgomery, Ala., for 2-story-and-basement frame bungalow; steam heat; cost \$7000.

Ala., Tuscaloosa.—E. J. Ostling & Son, architects, Montgomery and Tuscaloosa, Ala., are preparing plans for 2-story bungalow; hollow tile; concrete; Van Gilder system of construction; cost \$5000.

D. C., Washington.—Washington Sanitary Housing Co. (Mrs. Archibals Hopkins, 1826 Massachusetts Ave., N. W., and others) plans to erect additional dwellings in Southwest Washington.

Fla., Arcadia.—Z. N. Parker has plans by W. L. Redditt, Tampa, Fla., for dwelling; 2 stories; 14 rooms; frame construction; slate roof; hardwood floors, 57x43 ft.

Fla., Bartow.—E. L. West is reported to erect brick residence.

Fla., Daytona Beach.—H. C. Rowe, Groton, Conn., is reported to erect residence on Halifax River.

Fla., Jacksonville.—Henry Finkelstein will erect 7 one-story frame dwellings; cost \$3500.

Fla., Jacksonville.—D. M. McPhail (S. C. Taylor, Agt.) will erect 2-story frame residence on Davis St.; cost \$800.

Fla., Miami.—Mrs. Wm. Deering is reported having plans prepared by August Geiger, Miami, for residence; colonial style; frame and shingles; pergolas; 2 elevators, one operated by electricity, other by weights; living-room 22x45 ft.; 3 buildings for servants' rooms, pumping plant and laundry; cost \$10,000 to \$20,000.

Fla., Ozona.—S. S. Wilson will erect 8-room residence; frame; asbestos shingle roof; hot-water heat; electric lighting; construction about July 1.

Fla., Tampa.—Henry Rosenthal will erect \$4000 residence on Twenty-third Ave.

Fla., Atlanta.—Monie Ferst and H. M. Strauss, Forsythe Bldg., will expend \$3000 to erect dwelling; 30x52 ft.; hollow tile; tile roof; hot-air heat (contract not let); Harry E. Lindley, Archt., 617 Peters Bldg., Atlanta; day labor. (Lately noted.)

Fla., Atlanta.—C. B. Myers Construction Co. (agent) will erect 2-story frame dwelling at 34 Oakdale Rd.; cost \$11,000.

Fla., Atlanta.—Fair Dodd will erect residence in Druid Hills.

Fla., Atlanta.—W. P. Cole will erect 25 bungalows.

Fla., Augusta.—G. W. Green, Jr., will erect residence.

Ga., Augusta.—Mrs. J. B. Morgan will erect brick dwelling on 13th St.; 3 stories; cost \$7500.

Ga., Augusta.—Chas. W. Brown will erect brick residence at Central Ave. and Heath St.; cost \$5000.

Ga., Columbus.—Chas. F. Pekor will erect 2-story frame residence; hot-water or vacuum steam heat; metal shingles; T. W. Smith & Co., Archts., Garrard Bldg., Columbus.

Ga., Cordele.—J. A. Parker will erect dwelling; 1 and 2 stories; 12 rooms; fireproof; slate roof; steam heat; electric lighting; architect not selected.

Ga., Newnan.—Dr. Thos. J. Jones will erect residence; 2 stories; 10 rooms; brick veneer; cost \$12,000; day labor.

Ga., Newnan.—Amos Wilkinson will erect dwelling; cost \$3000.

Ga., Newman.—R. O. Jones will erect dwelling; cost \$800.

Ga., Savannah.—T. H. Golden is reported to erect residence on 38th St.

Ga., Valdosta.—W. A. Pardee will erect \$3000 bungalow; Bishop & Greer, Archts., Strickland Bldg., Valdosta.

Ky., Louisville.—D. L. Schlegel will erect brick dwelling at 2067 Eastern Parkway; cost \$6500.

Ky., Louisville.—L. Jacobson will erect 4 frame dwellings at 2222-25 and 2233 W. Oak St.; cost \$6000.

Ky., Louisville.—C. T. Thomas will erect frame dwelling at 353 Shawnee Ter.; cost \$3000.

Ky., Louisville.—Minnie Taylor will erect frame dwelling at 1631 Tyler Parkway; cost \$3500.

Ky., Louisville.—Edw. Linder will erect brick veneer dwelling at 2901 S. 4th St.; cost \$6500.

Ky., Maysville.—John M. Hunt will erect residence on 2d St.

La., New Orleans.—Geo. Koppel will erect 2-story frame residence; cost \$4636.

La., New Orleans.—O. B. Clafron will erect 2-story residence; cost \$3000.

La., New Orleans.—Claude Hartman will erect 5 cottages in addition to those now under construction.

La., New Orleans.—Chas. Folk will erect 1-story residence at 2412 Soniat St.; cost \$3000.

La., New Orleans.—W. F. Fullam will erect double 2-story frame residence at 4216 Dryades St.; cost \$3500.

Md., Baltimore.—E. J. Gallagher Realty Co., 919 Munsey Bldg., will erect 47 2-story brick dwellings on Wyman Ave. and 27th St.; about 11x46 ft.; Carey roofing; furnace heat; cost \$74,000.

Md., Baltimore.—Jas. E. Amos will erect cottage on Egerton Rd.; 2½ stories; frame; 28x39 ft.; cost \$5000; M. H. Murray, Archt.; Murray & Haines, contractors; all of 1709 N. Ellamont St., Baltimore.

Md., Baltimore.—H. W. Cooke, 210 Law Bldg., will erect 8 dwellings at Gifford Ave. and 28th St.; 2 stories; brick; 17x55 ft. and 24x42 ft.; cost \$18,000; J. C. Spedden, Archt., 1640 Hanover St., Baltimore.

Md., Baltimore.—Annex Construction Co. has plans by G. B. Lohmuller, 1121 Calvert Bldg., Baltimore, for 20 dwellings on 22d and Bartsch Sts.; 2 stories; brick; 5, 11x44 ft.; 1, 16x10 ft., and 14, 13x44 ft.; ordinary construction; Carey's roof; hot-air heat to cost \$35 for each dwelling; gas and electric lighting; cost \$30,000; construction by owner. (See Machinery Wanted.)

Md., Baltimore.—James Keelty, 2734 Edmundson Ave., is having plans prepared by W. B. Gerwig, 1028 Fulton Ave., Baltimore, for 58 dwellings on Riggs Ave. between Duke-land and Ashburton Aves.; 2 stories; ornamental brick; cost about \$116,000.

Md., Baltimore.—J. R. Van Zandt, Woodland Ave., Arlington, Md., will expend \$5000 to erect dwelling; ordinary construction; slate roof; hot-water heat; John R. Forsythe, Archt., 232 St. Paul St., Baltimore. (Lately noted.)

Md., Stevenson.—Dr. Walter Wickes, 24 E. Eager St., Baltimore, has plans by Smith & May, 804 Law Bldg., Baltimore, for residence at Rogers Station; 2 and 3 stories; brick and limestone; fireproof construction; slate, slag and tile roof; concrete foundation; hardwood interior; contractors estimating are: Cowan Building Co., 106 W. Madison St.; John Waters, 23 E. Center St.; Blake & Engle and W. E. Burnham, both in Law Bldg.; G. Walter Tovell, Eutaw and Dolphin

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## MANUFACTURERS RECORD.

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Sts.; Edward Brady & Son, 1113 Cathedral St.; all of Baltimore.

Md., Tobins (not a postoffice).—Geo. S. Jackson, 24 W. Biddle St., Baltimore, Md., has plans by Chas. Barton Keen, 1218 Chestnut St., Philadelphia, Pa., for residence; frame; shingle roof; contractors estimating are: Cowan Building Co., 106 W. Madison St.; Gladfelter & Chambers, 2074 Woodberry Ave.; A. F. West, 15 E. Fayette St.; G. Walter Tovell, Eutaw and Dolphin Sts.; all of Baltimore.

Mo., Kansas City.—George Smith, 33rd and Warwick Blvd., will erect dwelling on Hyde Drive.

Mo., Kansas City.—R. W. Coleman, 1106 Gloyd Bldg., will erect dwelling.

Mo., Kansas City.—W. H. Collins Investment Co. will erect 28 5-room bungalows on Bellaire Ave.; cost \$77,000.

Mo., St. Louis.—Clemens Eckhoff will erect residence on Forsythe Ave.

Mo., St. Louis.—Elwin L. Noxon will erect residence in Compton Heights.

Mo., St. Louis.—E. J. Senkosky will erect residence on Allen Ave.

Mo., St. Louis.—Ernest and Virginia Moresman will erect bungalow; cost about \$3000.

Mo., St. Louis.—Louis Hiltier will erect residence on Flora Blvd.; cost \$18,000.

Mo., St. Louis.—Leisner Realty & Building Co. will erect 2-story cottages on Minnesota Ave.

N. C., Charlotte.—Enterprise Realty Co. will erect residence in Myers Park; 8 rooms; shingle roof; hot-air heat; electric lighting; cost \$5000; S. T. Vaughn, Archt., Charlotte, N. C.

N. C., Charlotte.—C. W. Requarth will erect residence at Hermitage Ct. and Queens Rd., Myers Park; 8 rooms; cost \$500.

N. C., Charlotte.—E. C. Griffith will erect 3 residences on Dartmouth Pl.; cost \$15,000. N. C., Charlotte.—Geo. Stephens will erect \$10,000 residence on Harvard Pl.

N. C., Lamberton.—R. D. Caldwell is having plans prepared by Mr. Kennedy, Raleigh, N. C., for residence. (Lately noted.)

Okl., Tulsa.—James Veasey will erect two-story frame residence on S. Cheyenne Ave.; cost \$9000.

Okl., Tulsa.—John H. Markham, Jr., is erecting residence to cost \$30,000.

S. C., Anderson.—Frank Alexander will erect cottage on Summitt Ave.

S. C., Anderson.—Sam'l. L. Prince is reported to erect 6-room residence; cost \$3500.

S. C., Florence.—Pee Dee Experiment Station has plans by R. E. Lee of Clemson College, S. C., for residence; 2 stories; frame; ordinary construction; cost \$3500. Address proposals to R. E. Currlin, Florence.

S. C., Greenville.—David Jennings has plans by F. H. and J. G. Cunningham, Greenville, for residence; 2 stories; 10 rooms; shingle roof; vacuum vapor heat; gas and electric lighting; bids opened Apr. 24.

S. C., Manning.—A. C. Bradhorn will erect dwelling; wood and brick.

S. C., Manning.—H. H. Bradhorn will erect wood and brick dwelling.

S. C., Rock Hill.—Rev. R. A. Miller, Lowell, N. C., is having plans prepared by W. O. Pratt, Gastonia, N. C., for residence.

Tenn., Greeneville.—J. D. Britton will erect dwelling; 6 rooms and basement; ordinary construction; Oriental slate-surfaced roof; hot-air furnace; lighting not determined; cost \$15,000 or \$16,000; date of opening bids not set.

Tenn., Knoxville.—J. G. Johnston will rebuild burned residence; 30x32 ft.; 80-ft. porch; ordinary construction; brick veneer.

Tenn., Memphis.—H. C. Yerkes has plans by Mahan & Broadwell, Memphis, for residence at Lumpkin St. and North Parkway; brick and stucco; brown tile roof; Italian renaissance style; 10 rooms; garage in rear; cost \$10,000.

Tenn., Memphis.—Dr. J. W. Peet has plans by W. L. Redditt, Tampa, Fla., for 2-story residence; stucco; tile roof; steam heat; hardwood floors; cost \$10,000.

Tenn., Memphis.—Harry Brannan will erect two 1-story frame residences at 1666-1673 Foster Ave.; cost \$6000.

Tenn., Nashville.—E. C. Fox and G. F. Underwood will erect several bungalows on Scott Ave. and Falls St., Eastland.

Tenn., Nashville.—Inglewood Park Co., Andrew O'Brien, Prest., plans to erect residences to cost \$2000 to \$3000 each in Inglewood Subdivision.

Tex., Canadian.—J. F. Johnson has plans by Bollet & Lauej, Scarritt Bldg., Kansas City, Mo., for residence; 17 rooms; brick;

tile roof; vacuum steam heat; electric lighting; cost \$14,000 to \$16,000; construction about May 1. (Lately noted.)

Tex., Dallas.—Cobb & Crawford will erect 2-story 8-room frame residence at 331 S. Montclair St.; cost \$3500.

Tex., Dallas.—C. M. Neal will erect 2-story 8-room frame residence at 2200 South Blvd.; cost \$3000.

Tex., Dallas.—D. W. Caswell will erect 2-story 12-room frame residence at 522 Germania St.; cost \$4000.

Tex., Dallas.—Carl Mann will erect 2-story 8-room frame residence at 1707 Garrett St.; cost \$3000.

Tex., Dallas.—E. F. Rall will erect 12 room 2-story frame residence at 1412 Park Ave.; cost \$5800.

Tex., Dallas.—Fisher & Fisher will erect 2-story 8-room frame residence on N. Bishop St.; cost \$3500.

Tex., Dallas.—J. D. Scofield will erect 2-story 8-room frame residence at 612 Zang's Blvd.; cost \$3500.

Tex., Dallas.—Jno. L. Greenfield will erect two 8-room 2-story frame residences at 2318 and 2326 Grand St.; cost \$7700. (Lately noted.)

Tex., Dallas.—H. J. Emmins will erect 5-room frame cottage at 3420 Gilbert St.; cost \$2500.

Tex., Dallas.—K. V. Bunting will erect 2-story 7-room dwelling at 638 W. 10th St.; cost \$3425.

Tex., El Paso.—Perry-Kirkpatrick Co. will erect 5 brick bungalows in Manhattan Heights and East El Paso; cost \$17,000.

Tex., El Paso.—Phoenix-El Paso Building Co. will erect brick residence in Alexander's Addition; cost \$10,000.

Tex., Houston.—F. E. Shofner will erect 2 five-room stucco residences in Oaklawn Addition; cost \$3700.

Tex., Houston.—G. W. Tharp will erect 2 5-room and one 6-room dwelling on Roberts St. and Leland Ave.; cost \$7526.

Tex., Uvalde.—Uvalde Dist. of Methodist Conference will erect parsonage.

Va., Norfolk.—Thos. Hagan has plans by Brown & Lehman, Norfolk, for residence; 30x40 ft.; 2 stories; tile and stucco; hot-water heat; 9 rooms and bath; cost \$7000.

Va., Richmond.—Mrs. E. B. Allen will erect 3-story brick dwelling on Park Ave.; cost \$21,000.

Tex., Dallas.—R. H. Gee will erect 2-story frame 8-room residence at 2722 Grand St.; cost \$3000.

Tex., Dallas.—Wendell Spence will erect 2-story 6-room frame residence at 3824 Congress St.; cost \$3700.

Tex., Galveston.—M. Muocenti will erect three frame cottages on 36th St.; metal roofs; cost \$4000.

Tex., Houston.—Mrs. G. W. Swift will erect residence on Hyde Park Blvd.; 8 rooms; cost \$3200.

Va., Norfolk.—Max Kaplan will erect store and residence. (See Stores.)

Va., Norfolk.—S. F. Pollard has plans by Louis R. Moss, Norfolk, for residence in Colonial Pl.; W. J. Atkinson & Bro. are lowest bidders at \$3999.

Va., Richmond.—Claude E. Sprinkle will erect six 2-story brick dwellings on Floyd Ave. and Grace St.; cost \$34,600.

Va., Richmond.—O.-J. Davis will erect detached 2-story brick dwelling on Floyd Ave.; cost \$3500.

Va., Roanoke.—J. V. Boxley will erect two-story brick dwelling on Franklin Rd.; cost \$12,200.

Va., Roanoke.—Walter Jamison will erect 2-story brick-cased dwelling on Henry St. and Walnut Ave.; cost \$6000.

W. Va., Huntington.—R. W. and S. B. Hall will erect 2 residences; 6 and 7 rooms; brick; cost \$3900.

## GOVERNMENT AND STATE

Ga., Dahlonega—Postoffice.—E. R. Meaders & Sons will erect postoffice building. (See Miscellaneous Structures.)

Okla., Fort Sill—Officers' Quarters.—Constructing Quartermaster will receive bids until May 20 to erect bachelor officers' quarters.

## HOTELS

Fla., St. Augustine.—Monson Hotel, A. V. Monson, Prop., is having plans prepared by Good T. Butler, 24 Bay St., St. Augustine, to rebuild hotel; fireproof; steam heat; electric lighting; walls to nearly all rooms; 60 bedrooms; cost \$35,000 to \$40,000. (Lately noted.)

Fla., St. Petersburg.—St. Petersburg Investment Co., H. Walter Fuller, Mgr., Central Ave. and 4th St., is reported organizing company to erect 10-story hotel on Central Ave.

Ky., Hazard.—D. Y. Coombs has plans by Deates & Son, Lexington, for hotel and store building; 70x115 ft.; to contain 2 stories; brick and stone; galvanized iron roof; heating and lighting not decided; cost (without mechanical equipment) \$40,000; bids ready probably in 10 days; contract for stone basement, 8 ft. high, let to D. W. Salyer & Co. (Lately noted.)

La., New Orleans.—E. S. Hayford prepared plans for store and hotel building. (See Stores.)

Okl., Ardmore.—C. E. Fraley has plans by J. B. White, Ardmore, for hotel; 90x100 ft.; 5 stories; fireproof; composition roof; steam direct radiation; lighting not decided; cost \$100,000; day labor. (Lately noted.)

Tex., Beeville.—Company organized with Vigg Kohler, Prest.; B. P. Stephenson, V.-P.; Dr. E. P. Cayo, Secy.; will erect hotel at Cleveland and Washington Sts.; 5 stories; reinforced brick veneer; 75x138 ft.; fireproof; 60 guestrooms; W. C. Stephenson and F. W. Hedenfels, Archts.

Tex., Palestine.—Palestine Hotel Co. will expend \$100,000 to erect hotel; 75x100 ft.; 4 stories and basement; 84 bedrooms; fireproof; tile or concrete roof; steam heat; electric lighting; H. T. Phelps, Archt., San Antonio; bids opened about June 1. (Lately noted.)

Va., Suffolk.—C. S. Butler has plans by Burrell Riddick, Suffolk, for hotel at Franklin and Washington Sts.; 4 stories; 50 rooms. (C. S. Butler, Mgr. Eureka Cafe, lately noted as organizing company to erect hotel.)

W. Va., Bluefield.—W. L. Lamerdin will erect 98x160-ft. fireproof hotel and theater; 14 stories; cost \$40,000.

## MISCELLANEOUS

Ala., Eufaula—Settlement-house.—Miss Marie Locke is interested in erection of settlement-house in factory district.

Ala., Gadsden—Stables.—T. F. Griffin is reported to erect stables; cost \$20,000.

Ala., Lewisburg—Sanitarium.—A. C. Watts, R. F. D. No. 7, will rebuild sanitarium; 6 rooms; mill construction; vulcanite roofing; electric lighting; cost \$3000; construction in about 30 days. (Lately reported built.)

Fla., Clermont—Library.—Ladies' Advance-ment Club and Board of Trade are reported promoting erection of public library and auditorium.

Fla., Pensacola—Hospital.—Sisters of Charity, Emmitsburg, Md., are having plans prepared by O. A. Von Herbulis, Woodward Bldg., Birmingham, Ala., for hospital; probably stone; 5 stories; frontage 187 ft.; roof garden; wing on each side with frontage of 50 ft.; brick boiler-house and laundry; initial cost \$15,000. (Lately noted.)

Ga., Dahlonega—Postoffice.—E. R. Meaders & Sons will erect 2-story brick postoffice building; steel front.

Ga., Savannah—Fair.—J. R. Miller, Statesboro, Ga., is reported to have acquired additional land and to erect fair buildings, etc.

Ky., Louisville—Restaurant.—Childs Dining Hall Co., New York, is reported to expend \$20,000 to remodel building on 4th St. for restaurant.

Mo., Kansas City—Clubhouse.—Three Arts Club will erect proposed clubhouse to cost about \$50,000; Miss Cline Matteson, 3105 Brooklyn Ave., is interested.

Mo., St. Louis—Clubhouse.—Century Boat Club has plans by T. P. Barnett Co., Central National Bank Bldg., St. Louis, for additions and alterations to building 5500 S. Broadway, St. Louis; plans ready for bids.

Mo., St. Louis—Cafe.—W. H. and S. L. Langdale will erect Capri Inn and Garden for Jos. Goncelli on Delmar Blvd.; Italian style; brick and stucco; Italian red tile exterior; Italian garden with wall in stucco and tile; T. P. Barnett Co., Archt., St. Louis.

Mo., St. Louis—Gymnasium.—Kinzs High-way Presbyterian Church will erect 2-story gymnasium at 5010 Cabanne Ave.; cost \$35,000; construction by owner; plans by J. Hal Lynch, Dolph Bldg., St. Louis.

N. C., Ahoskie—Hospital.—West Chowan Hospital Co., \$20,000 capital, incptd. by C. W. Scarborough, Murfreesboro, N. C.; J. H. Peele, Roxobel, N. C.; J. S. Hughes, Aulander, N. C., and others.

Oklahoma City—Baseball Park.—S. D. Hunter purchased Oklahoma City Baseball Club; has concrete foundations completed and is having plans prepared for grandstand to seat 3000; cost \$6000. (Oklahoma City Baseball Club lately noted having plans prepared by Layton & Smith, Oklahoma City, for ball park.)

S. C., Manning—Stable.—F. C. Thomas will rebuild stable; 100x150 ft.; brick; tin roof; cost \$5000; plans and construction. (Lately reported burned.)

Tenn., Knoxville—Library.—Lawson-McGhee Trustees will erect library and turn same over to city; cost \$50,000.

Tenn., Morristown—Cafe.—Chas. F. Graham, Savannah, Ga., is reported to erect building for cafe.

Tex., Beaumont—Parish-house.—St. Mark's Episcopal Church is having plans prepared for church and parish-house. (See Churches.)

Tex., Paris—Clubhouse.—Gordon Country Club plans to erect clubhouse to cost \$8000 to \$10,000; 2 stories.

W. Va., Point Pleasant—Parish-house.—Christ Episcopal Church has plans for church building and parish-house; latter, 20x60 ft. (See Churches.)

## RAILWAY STATIONS, SHEDS, ETC.

Ga., Macon.—Southern Ry. Co., B. Herman, Ch. Engr., 1300 Pennsylvania Ave. N. W., Washington, D. C.; Central of Georgia R. R., C. K. Lawrence, Ch. Engr., Savannah, Ga.; Georgia Southern & Florida Ry., W. C. Shaw, Jr., Macon; Dublin & Savannah R. R., J. T. Wright, Gen. Mgr., are reported to organize terminal company to erect proposed terminal station previously noted to be erected by Central of Georgia R. R.

La., Algiers, Sta. A, New Orleans.—Morgan's Louisiana & Texas R. R. & Steamship Co., D. K. Colburn, Engr. M. W., Houston, Tex., is reported to erect union depot.

Miss., Vicksburg.—Vicksburg, Shreveport & Pacific Ry., E. L. Loftin, Supvr. B and B., will erect passenger station.

## SCHOOLS

Ala., Birmingham.—City will erect school in Central Park to cost about \$15,000; 4 rooms; J. O. Chancey, Chmn. School Com. of Central Park Civic League.

Ala., Marion.—Perry county will erect high school; cost \$12,000. Address County Comrns.

Ala., Phenix City, P. O. at Columbus, Ga.—City will erect 2-story brick school; cost \$6000 to \$8000; Roy Duncan, Archt., Gilbert Bldg., Columbus. (Lately noted.)

Ark., Argenta.—School Board has plans by C. L. Thompson, Little Rock, for improvements to Clendenon School to cost about \$20,000; will include gymnasium, lockers, shower baths, etc.; teachers' restroom; grading and terracing grounds; concrete steps, retaining walls with balustrade and parapets, etc.

Ark., Hot Springs.—School Board, L. H. Berry, Prest., opens bids May 18 to erect high-school building to cost \$145,000 and ward school to cost \$40,000; former, 3 stories and basement; latter, 2 stories and basement; fireproof and ordinary construction; tin and composition roofs; fan blast and gravity system of heating; Sanguinetti & Staats, Archts., Fort Worth, Tex. (Lately noted.)

Ark., Paragould.—Paragould Special School Dist. has plans by F. E. Shane, Paragould, for 6-room addition and repairs to old building and for 6 rooms and basement to building at Poplar and 6th Ave.; cost \$10,000 and \$12,000, respectively; brick and plaster; metal roof; cost of heating plants, \$2500 and \$1000, respectively; bids opened on first building June 5 and latter building June 1. (Lately noted.)

D. C., Washington.—Dist. Comrns. are having plans prepared by Snowden Ashford, 218 17th St. N. W., Washington, to rebuild Western High School, reported burned at loss of \$300,000.

Fla., Avon Park.—W. L. Redditt, Archt., Tampa, Fla., is preparing plans for high school; 2 stories; brick; cost \$20,000; contract May 5.

Fla., Clermont.—School Board ordered election on \$10,000 bonds to erect high school.

Fla., Monticello.—City is reported to erect school to cost \$12,000 to \$15,000. Address The Mayor.

Fla., Plant City.—Hillsboro County School Board, Tampa, Fla., rejected all bids to erect schools at Plant City and Springhead; will receive new bids until May 12; Willis R. Biggers, Archt., Tampa. (Lately noted.)

Fla., Springhead.—Hillsboro County School Board, Tampa, Fla., rejected bids to erect school. (See Fla., Plant City.)

Fla., St. Petersburg.—E. R. Dickey is erecting moving-picture theater; cost about \$40,000.

Ga., Roswell.—City voted \$900 bonds to erect school. Address The Mayor. (Lately noted.)

Ga., Canton.—City will vote May 22 on \$35,000 bonds, to include \$26,000 to erect and equip school; Howell Brooke, Mayor.

Ga., Millstead.—Millstead Mfg. Co., Oscar Grimes, Supt., will expend \$10,000 to erect school; 60x75 ft.; ordinary construction; composition roof; furnace heat; Walker & Chase, Archts., Candler Bldg., Atlanta; subcontracts include heating and ventilating, plumbing, etc. (Lately noted.)

Ga., Savannah.—Board of Education is considering erection of school at Collinsville; Otis Ashmore, Supt. of Education.

Ga., Thomasville.—City is considering voting on \$20,000 additional school bonds. Address The Mayor.

Ky., Hamby Station.—Building Com. of Hopkins County Board of Education, Madisonville, Ky., will erect school near Hamby Station. (See Ky., Madisonville.)

Ky., Lexington.—Berea College will erect dormitory to be known as Kentucky Hall; cost \$25,000.

Ky., Louisville.—Board of Education is having plans prepared by Joseph & Joseph (not D. X. Murphy & Bro. as lately reported) for school on Flat Lick Rd. and F St.; Ward & Glossup are preparing plans for 12-room building at 40th and Garland Sts.; J. B. Hutchins & Bro. for 8-room building on Flat Lick Rd.; J. Earl Henry, board's architect, is preparing plans for addition to Duncan St. school. (Lately noted.)

Ky., Madisonville.—Building Com. of Hopkins County Board of Education will erect schools in districts No. 20, near Hamby Station; No. 84, Porter-Payne; No. 46, Craynor; No. 86, McGrigors; No. 17, Elam; No. "T," near Anton, and No. "G," Nortonville.

Ky., Nortonville.—Building Com. of Hopkins County Board of Education, Madisonville, Ky., will erect school at Nortonville. (See Ky., Madisonville.)

Ky., Okolona, R. Sta., Louisville.—Catholic congregation will erect church and school. Address The Pastor.

Ky., Trenton.—Trenton Graded School Dist. plans to issue \$12,000 bonds to improve school. Address Dist. School Trustees.

Miss., Gulfport.—Gulfport School District plans to issue \$15,000 bonds for schools. Address Dist. School Trustees.

Miss., Hattiesburg.—Mississippi Normal College Trustees are having plans prepared by R. H. Hunt, Chattanooga, Tenn., for dormitory; brick; steel frame; reinforced concrete floors; hollow tile partitions; slate roof; steam heat; cost \$80,000.

Miss., Meridian.—City voted \$60,000 bonds to erect schools; J. W. Parker, Mayor. (Lately noted.)

Mo., St. Louis.—Wellston School Dist. votes May 5 on \$40,000 bonds to erect high school. Address Dist. School Trustees.

Mo., St. Louis.—German Catholic Church of the Holy Cross, Rev. C. C. Schmidt, pastor, will erect school on Ohio Ave.; to replace burned structure; 117x100 ft.; six classrooms; hall; committee rooms; basement; bowling alley; gymnasium; playroom; cost \$47,000.

Mo., Union Star.—Union Star School Dist. voted \$10,000 bonds for schools. Address Dist. School Trustees.

Mo., Unionville.—Unionville School Dist. voted \$30,000 bonds to erect school. Address Dist. School Trustees.

N. C., Jamestown.—Jamestown Special Tax Dist. Trustees contemplate issuance of \$7500 bonds for school improvements.

N. C., Winston-Salem.—City votes June 23 on \$60,000 bonds for schools; plans for West Salem School accepted; O. B. Eaton, Mayor. (Lately noted.)

S. C., Charleston.—School Commrs., A. B. Rhett, Supt., receive bids until May 25 to remodel Courtenay School according to plans by J. D. Newcomer, Charleston; separate bids to install hot-water heating system; also receive bids until June 15 for furniture and fixtures for said school; plans and specifications from J. R. Guy (Supt. of Constr.), Colored Industrial School, Presl-

dent and Fishburne Sts. (See Machinery Wanted.)

S. C., Johnston.—City selected plans by G. Lloyd Preacher, Augusta, Ga., for high school; 3 stories; brick; ordinary construction; steam or hot-water heat to cost \$4000; electric lights; 12 classrooms and auditorium; seating capacity 600; cost about \$20,000. (Lately noted.)

Tenn., Copper Hill.—Town will erect high school at Dixie College; brick; cost about \$8000.

Tenn., Cookeville.—City will erect boarding hall at Dixie College; brick; cost about \$8000.

Tenn., Franklin.—City voted \$15,000 bonds to erect addition to school. Address The Mayor.

Tenn., Memphis.—Goodwyn Institute is having plans prepared for 30-ft. extension to building at 3d St. and Madison Ave.; will increase capacity 400.

Tenn., Nashville.—Montgomery-Bell Academy Trustees acquired Tinsley property on Harding Rd. and are reported having plans prepared for several buildings.

Tenn., Rives.—Rives School District voted \$10,000 bonds to erect school. Address Dist. School Trustees.

Tenn., Pulaski.—City has plans by R. H. Hunt, James Bldg., Chattanooga, for addition to school; cost \$12,000. (Lately noted) voting \$12,500 bonds to erect annex to high school.)

Tex., Belton.—City opens bids in about 30 days to erect school; 65x10 ft.; 2 stories and basement; ordinary construction; tar and gravel roof; direct steam heat; cost \$40,000; Sangunet & Stnats, Archts., Fort Worth; address proposals to Neal Bassel, Belton. (Lately noted.)

Tex., Carbon.—Carbon School Dist. voted \$15,000 bonds to erect school. Address Dist. School Trustees.

Tex., Carrollton.—Carrollton School Dist. Trustees are reported considering election on \$15,000 bonds to erect high school.

Tex., Clifton.—Clifton Independent School Dist. will expend \$20,000 to erect high school; 61x95 ft.; ordinary construction; hot-air heat; electric lighting; Geo. Burnett, Archt., 1702 Amicable Bldg., Waco, Tex.; bids opened May 8; address proposals to R. S. Clement, Clifton, Tex. (Lately noted.)

Tex., El Paso.—City voted \$300,000 bonds to erect high school and make school improvements according to plans by Trost & Trost, El Paso. (Lately noted.)

Tex., Ennis.—City, W. D. Farris, Mayor, is reported to vote on \$80,000 bonds for schools. (See Water-works.)

Tex., McGregor.—McGregor School District voted \$25,000 bonds to erect school. Address Dist. School Trustees.

Tex., Richardson.—Virgil Walton and S. P. Harben, Bldg. Comm., have plans by Sparger & Peters, Bonham, Tex., for school; 67 ft. 8 in. by 85 ft. 8 in.; cost \$13,000; Barrett gravel specification roof; heating to cost \$600; electric lighting to cost \$200; cement sidewalks to cost \$400; contract let Apr. 25. (Lately noted.)

Tex., Thorndale.—Thorndale Independent School District will select architect in next 15 days to erect school bldg.; brick; roofing not decided; probably steam heat; electric wiring; cost \$17,500; address proposals to C. Salter. (Lately noted voting \$20,000 bonds.)

Va., Petersburg.—Board of Aldermen appropriated \$25,000 to purchase site and erect Sixth Ward school. Address The Mayor.

Va., Richmond.—School Board, C. P. Walford, Clerk and Supvr., receives bids until May 8 to erect school on Floyd Ave. between Vine and Allen Ave.; separate bids for heating and ventilating; plans and specifications at office of Chas. M. Robinson, Archt., Times-Dispatch Bldg., Richmond.

Va., Staunton.—Virginia School for Deaf and Blind, S. M. Donald, Mem. of Exec. Com., W. A. Bowles, Supt. Bldg. Com., will erect industrial shop; T. J. Collins & Son, Archts., Staunton.

W. Va., Bridgeport.—Board of Education is reported receiving bids to erect high school; Geo. Scheetz, Archt., Oglebay Blk., Bridgeport.

W. Va., Martinsburg.—St. Joseph's Catholic Church, Rev. W. A. McKeefry, pastor, will erect parochial school; 55 ft. 4 in. by 66 ft. 4 in.; 2 stories and basement; red brick; gray stone trimmings; hardwood floors; slate roof; steam heat to cost \$2800; J. W.

Woltz, Archt., Waynesboro, Pa.; construction under supervision of C. A. Westenhaver. (Lately noted.)

## STORES

Ala., Elba.—S. W. May will erect three 2-story brick buildings; 25x30 ft.; cost \$10,000; tin roof; construction about Apr. 20 to 26. (Lately reported.)

Ala., Tuscaloosa.—Cochrane & Simpson have plans by E. J. Ostling & Son, Tuscaloosa and Montgomery, Ala., for 2 stores; 2 stories and basement; press brick; plate and prism glass; cost \$12,000.

Ala., Tuscaloosa.—H. B. Foster has plans by E. J. Ostling & Son, Tuscaloosa and Montgomery, Ala., for 8 one-story stores; pressed brick fronts; plate and prism glass; cost \$12,500.

Ala., Tuscaloosa.—Thomas C. McCarvey has plans by E. J. Ostling & Son, Tuscaloosa and Montgomery, Ala., for brick store building; pressed brick and prism glass; cost \$6500.

Ark., McGehee.—H. F. Bailey, Monticello, Ark., is reported to erect store, office and lodge building. (See Bank and Office.)

Ark., Mountain View.—H. S. Mabry will erect 2-story brick or stone business building on W. Main St.

Fla., DeFunik Springs.—Parish & Co. and DeFunik Drug Co. will enlarge buildings; construction begun.

Fla., Fort Myers.—A. J. Moore will erect building; lower floor for stores; upper floors for apartments.

Fla., St. Petersburg.—Willson-Chase Co. will expend \$20,000 to \$25,000 to erect store and office building; 44x100 ft.; 4 stories; flat roof; electric lighting; electric passenger and hand-power elevators; sprinkler system; construction June 1; lately noted. (See Machinery Wanted.)

Fla., West Palm Beach.—H. P. McGinley has plans by G. L. Pfeiffer, Miami, for store building for McGinley Bros. Co. at Pointsettia and Clematis Sts.; 2 stories; 50x150 ft.; concrete blocks; fireproof; foundation to support 3 additional stories. (Lately noted.)

Fla., West Tampa, Fla., Tampa.—Antonio Seditta has plans by John W. Biggar, West Tampa, for store building on Howard Ave.; cost \$10,000. (Lately incompletely noted.)

Ga., Albany.—W. Willingham, Atlanta, is reported to erect 2-story brick building to replace burned structure; also erect additional story to adjoining structure.

Ga., Atlanta.—Edw. L. Myer will erect building; site 48x142 ft.

Ga., Atlanta.—Jacob's Pharmacy will remodel building; 73x129 ft.; install new fixtures and reset old ones; balcony, dumbwaiters, etc.; cost \$6000 Harry E. Lindley, Archt., 617 Peters Bldg., Atlanta; date of opening bids not set. Address proposals to Hentz & Reid, 923 Candler Bldg., Atlanta.

Ga., Tallapoosa.—Walter Morrow will expend \$5000 to erect store and printing plant; 40x70 ft.; fireproof; Barrett's specification felt roof; construction Apr. 15. (Lately noted.)

Ky., Barbourville.—Barbourville Brick & Tile Co. will expend \$10,000 to erect brick store and several brick residences.

Ky., Hazard.—E. Kelley will erect 2-story brick building for store and offices; 30x71 ft.; composition roof; 8-ft. concrete sidewalks; cost \$3500 to \$4000; date of opening bids not set.

Ky., Lexington.—Richard Stoll is repairing building occupied by Sample Shoe Store. (Lately reported damaged about \$300 by fire.)

Ky., Hazard.—D. Y. Coombs has plans for hotel and store building. (See Hotels.)

La., New Orleans.—E. S. Hayford prepared plans for building on St. Charles St.; front of buff brick, with Spanish canopy, with green glazed tile roof; lower floor for stores; upper floor to contain 26 rooms connected with baths for hotel.

Md., Mt. Airy.—Miss Belle Runkles will erect store building to replace structure lately noted burned.

Miss., Coldwater.—A. F. Canada will erect brick store building.

Mo., Kansas City.—George Hoffman and George Bowling will erect business building at 1825-27 McGee St.; 2 stories; brick and stone; cost \$19,000; completion by Oct. 1.

Mo., Kansas City.—Charles Weill of Charles Weill Rwy. Supply Co. will erect store and apartment building on 12th St.

N. C., Dunn.—Marvin Wade Co. will erect store; 2 stories; brick.

Ola., Tulsa.—W. J. Shepherd will erect

2-story brick business building at 411 N. Main St.; cost \$3000.

S. C., Greenville.—J. B. Raynor will let contract about May 15 to erect store building; 26x75 ft.; ordinary construction; tar and gravel roof; steam heat; electric lighting; F. H. & J. G. Cunningham, Archts., Greenville.

Tenn., Dyersburg.—Dyersburg Lodge No. 712, B. P. O. E., contemplates erecting store, lodge and office building. (See Assn. and Frat. Bldgs.)

Tenn., Manchester.—Wm. Rodes will erect store building.

Tenn., Morristown.—M. X. McCaless, Jr. F. & H. M. Taylor have plans by A. B. Baumann, Knoxville, Tenn., for store buildings; 50x95 ft. and 25x95 ft.; 3 stories; ordinary construction; gravel roof; electric lighting; furnace in one building; cost \$15,000; construction by July 1.

Tenn., Morristown.—Nims-Goodson Dry Goods Co. will erect building; 40x100 ft.; 5 stories.

Tenn., Nashville.—Frank Winford will erect brick-veneer building on Linden St. near 12th St.; cost \$4500.

Tenn., Nashville.—V. E. Schwab has plans for store and office building. (See Bank and Office.)

Tenn., Nashville.—Grandview Hall Co., inceptd. by J. W. Whitsett and others to erect store and lodge building. (See Association and Fraternal.)

Tex., Dallas.—J. W. Slaughter will erect 1-story brick building at 2520 S. Ervay St.; cost \$4500.

Tex., Dallas.—McDougle, Cameron & Webster will erect reinforced concrete building at Mamre and Broon Sts.; 2 stories and basement; cost \$50,000.

Tex., El Paso.—Jennings & Wood will erect brick business building and apartments at Kansas St. and Myrtle Ave. to cost \$37,000.

Tex., Galveston.—Walker-Smith Co. will erect 1-story brick building at 19th and Strand Sts. to cost \$3000, and metal garage to cost \$1000.

Tex., San Augustine.—John Thomson is reported to erect 2-story building to replace burned structure; steam heat; water connections; for stores and offices.

Tex., San Antonio.—J. M. Watson is reported to erect building at Ave. C and 3d St.; details not determined.

Tex., San Antonio.—San Antonio Drug Co. will alter and improve building on W. Commerce St., providing terra-cotta and brick front; cost about \$32,000; may erect 3 additional stories; later plans to erect 8-story building. (Previously noted.)

Va., Norfolk.—C. W. Simmons will erect store and apartment building at Chapel and Denhart Sts.; 2 stories; cost \$3000.

Va., Norfolk.—J. B. Turner will erect 1-story store at 1511 Proescher St.; cost \$4200.

Va., Norfolk.—Max Kaplan will erect 2-story store and residence at Myers Ave. and 15th St.; cost \$3700.

Va., Norfolk.—Scott B. Appleby will erect 3 one-story stores at Duke and Franklin Sts.; cost \$4200.

Va., Richmond.—Wm. C. Schmidt will expand \$4500 to repair brick store at 701-03 E. Franklin St.

Va., Richmond.—Kaufman & Levy have plans by Charles K. Bryant, 500 Lyric Bldg., Richmond, for store building at 2d and Broad Sts.; 47x75 ft.; 4 stories and basement; mill construction; steam heat; electric lighting; prism sidewalk lights; slag roof; cost \$30,000; bids opened May 1.

W. Va., Beckley.—W. A. Stanley will erect building on Neville St.; probably brick and stone; 2 stories and basement.

W. Va., Wheeling.—Edw. Wagner has plans by F. F. Faris, Schmulbach Bldg., Wheeling, for store; 7 stories; mushroom construction; plans ready in about a week. (Lately noted.)

W. Va., Wheeling.—B. F. Garvin of Wheeling Warehouse & Storage Co. is reported to erect building on Main St.; probably for stores.

## THEATERS

Fla., Fort Meade.—J. A. Cole is having plans prepared by Louis A. Fort, Lakeland, Fla., for theater.

Ga., Atlanta.—P. Mion, Box 985, has plans by J. R. MacEachron, Candler Bldg., Atlanta, for moving-picture theater; 32x146 ft.; fireproof; cost \$20,000; construction May 1. (Lately noted.)

La., Shreveport.—Mutual Theater & Amusement Co. inceptd. with \$100,000 capital; Sam

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## MANUFACTURERS RECORD.

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W. Mason, Prest.; W. H. Booth and E. J. Silvers, V.-Ps.; C. M. Shugart, Secy.; J. W. Flournoy, Treas.; will erect theater building. Md., Baltimore.—Progressive Circuit, Jas. D. Barton, Gen. Mgr., Times Bldg., New York, invited following contractors to estimate on preliminary work of erecting theater at Light and German Sts.: Consolidated Engineering Co., Gunther Bldg.; Frank Wagner, 3010 Evergreen Ter.; William P. Killeen & Co., 749 Title Bldg.; Irwin & Leighton, Keyser Bldg.; Williams & Straus, 819 Equitable Bldg., all of Baltimore; this work to include excavating, masonry and foundation work; remainder of work to be sublet by company under superintendence of Thos. W. Lamb, Archt., 644 Eighth Ave., New York; 2 stories; 92x148 ft.; brick and concrete; lower floor on Light St. for stores 30 ft. deep; concrete front; seating capacity 2000; cost, including site, about \$285,000. (Lately noted.)

Md., Baltimore.—George R. Callis, Jr., Knickerbocker Bldg., is preparing plans for moving-picture theater on S. Hanover St.

Tenn., Jackson.—Ferguson Bros. Stock Co. will erect airdome on W. Main St.

W. Va., Bluefield.—W. L. Lamerdin will erect theater and hotel building to cost \$300,000. (See Hotels.)

## WAREHOUSES

Ga., Macon.—Macon Bonded Warehouse, with \$60,000 capital, Incpd. by R. F. Willingham, M. E. Goode, Brown Wimberly and others; will erect bonded warehouse.

Ga., Millstead.—Millstead Mfg. Co., Oscar Grimes, Supt., will expend \$7500 to erect warehouse; details not determined; Walker Bldg., Knoxville.

## BUILDING CONTRACTS AWARDED

## APARTMENT-HOUSES

D. C., Washington.—Thos. W. Smith let contract to Jas. L. Parsons, Union Trust Bldg., Washington, to erect 3-story brick apartment house at 116 Sixth St. N. E.; cost \$30,000; A. P. Clark, Jr., Archt., 816 14th St. N. W., Washington.

Fla., Jacksonville.—Arthur Meigs has plans by and let contract to O. P. Opdike to erect 6 apartment buildings; 27x55 ft.; porches; cost (without mechanical equipment) \$30,000; brick walls; Carey's pitch and asphalt roof; gas heat to cost \$1000; electric lighting. (Lately noted.)

Fla., Jacksonville.—F. W. Phillips let contract to W. V. Henry, 1529 Walnut St., Jacksonville, to erect apartment and store building in Milldale; 50x50 ft.; brick; ordinary construction; tar and gravel roof; tile sidewalks; cost \$6000; B. P. Moseley has contract for wiring and Bowen Ramsay for gravel roof. (Mr. Henry lately noted to erect building.)

Ga., Atlanta.—C. G. Hannah let contract to Spinks & Butler, Atlanta, to erect 2-story frame apartment-house; cost \$4000.

Mo., St. Louis.—John Miller let contract to F. W. Hassebroek to erect 2-story tenement at 4622 Alaska St.; cost \$3650.

Mo., St. Louis.—Mrs. M. Stubblefield let contract to W. J. Hurt to erect 2-story tenement-house at 4424 Taft St.; cost \$4000.

Mo., St. Louis.—Arthur Nack let contract to L. Motzel, St. Louis, to erect tenement-house at 1527-29 Newhouse St.; 2 stories; cost \$5500.

Mo., St. Louis.—Mrs. Elizabeth A. O'Conor let contract to Frank L. Dittmeier, St. Louis, to erect 2 apartment buildings on Gustine Ave.; 2 and 4 suites; cost, including site, \$25,000.

Okla., Tulsa.—S. Gallais has plans by and let contract to A. F. Wasilewski, 820 S. Boulder St., Tulsa, to erect 3 apartment buildings; 44x75 ft.; 3 stories; each to contain 6 apartments of 7 rooms; mixed construction; gravel roof; steam heat; gas and electric lighting; cost \$20,000. (Lately noted.)

Tenn., Chattanooga.—Dr. I. R. Stone, Hamilton Bank Bldg., will expend \$7000 to erect apartment-house; 2 stories; mill construction; composition roof; heating and lighting not in general contract; W. H. Sears, Archt., Chattanooga; general contract (lately noted) let to Chambers & Son, Chamberlain Bldg., Chattanooga; subcontracts let as follows: Edwards & Frankhouse for brick; Stein Construction Co. for concrete; Howard P. Murphy, painting; all of Chattanooga.

Tenn., Knoxville.—L. D. Tyson let contract to erect store and apartment building. (See Stores.)

& Chase, Archts., Atlanta; probably day labor. (Lately noted.)

Ga., Savannah.—R. S. Salas will erect warehouse on River St.; 3 stories; brick. Mo., St. Louis.—Thos. K. Niedringhaus will erect warehouse; reported to be 10 stories; estimated cost \$1,000,000. Mr. Niedringhaus wires Manufacturers Record: "Matter has not progressed far enough for information."

N. C., Fayetteville.—Chamber of Commerce is reported promoting company to erect tobacco warehouse; estimated cost \$3500.

N. C., Winston-Salem.—B. F. Huntley Furniture Co. will erect 4-story storage building on Depot St.; cost \$15,000.

Tenn., Carthage.—Upper Cumberland Loose Leaf Tobacco Co., L. M. Ross, Secy-Treas., Gallatin, Tenn., will erect warehouse; 150x200 ft.; lately noted. (See Tenn., Gallatin, and Machinery Wanted.)

Tenn., Gallatin.—Upper Cumberland Loose Leaf Tobacco Co., L. M. Ross, Secy-Treas., will erect warehouse at Carthage and one at Gallatin, Tenn.; 150x200 ft.; steel construction; composition roof; cost \$12,000 and \$15,000, respectively; construction in about 60 or 90 days; lately noted organized with \$40,000 capital. (See Machinery Wanted.)

Tex., Fredericksburg.—Emil Riley will erect warehouse.

Tex., San Antonio.—Castanola & Son will receive bids to erect 2-story brick warehouse; information from Leo M. Dielmann, Archt., San Antonio.

Va., Norfolk.—Norfolk Warehouse Corp. will erect 2-story brick and iron bldg. on Front St.; cost \$17,000.

interior of bank building; furniture, fixtures and wainscot of mahogany and gray marble; bronze grill work; steel ceiling; 2 marble columns at entrance; plate-glass windows; cost \$10,000.

Ky., Hazard.—Morgan & Bowman let contract to erect office and store building. (See Stores.)

Md., Baltimore.—Bagby Furniture Co. let contract to John Hiltz & Sons, 3 Clay St., Baltimore, to erect office and warehouse building. (See Woodworking Plants.)

Md., Towson.—Second National Bank let contract to David M. Andrew Co., Mt. Vernon Ave. and 26th St., Baltimore, to alter and erect addition to building; 35x100 ft.; semi-fireproof; slag roof; cost \$30,000; A. C. Leach, Archt., 323 N. Charles St., Baltimore. (Lately noted under Baltimore, Md.)

Okl., Tulsa.—A. L. Farmer let contract to erect office and store building. (See Stores.)

S. C., Chester.—People's Bank let contract to Love & Owens to erect 32x75 ft. addition; 1 story; cost \$10,000; metal roof; steam heat; semi-indirect electric lighting; J. S. Starck, Archt., Rock Hill, S. C.; Chester Heating & Plumbing Co., Chester, and J. E. McDannol Stone Co., Yorkville, S. C., subcontractors. (Lately noted.)

Tex., Port Arthur.—Merchants' State Bank let contract to W. McDaniel & Son, Port Arthur, at \$47,859 (exclusive of plumbing and wiring) to erect building to contain bank and 4 stores; 85x140 ft.; brick and stone. (See Banks.)

Va., West Point.—State Bank of West Point let contract to A. J. Walcott, West Point, to erect bank and office building; 50x60 ft.; ordinary construction; Johns-Manville asbestos roofing; hot-water heat to cost \$1132; gas and electric lighting; H. L. Cain, Archt., Main St. Bank Bldg., Richmond; heating contract to Johnson-Langworth Co., Richmond; metal ceiling. Mans-Suter Co., Richmond, at \$339; bank fixtures to cost \$800; vault door, \$350. (Lately noted.)

## CHURCHES

Ala., Woodlawn, Sta. Birmingham.—Woodlawn Christian Church will erect building; one story, brick veneer; 70x80 ft.; ordinary construction; vulcanite roof; furnace heat; electric lighting; cost \$6000; contract let to Jas. Nunnally.

Fla., Fort Pierce.—First Presbyterian Church will expend \$15,000 to erect building; 50x80 ft.; concrete foundation; brick walls; indirect electric lighting; A. E. Lewis, Archt., 1022 Boulevard, Miami; subcontract will be let for glass, lights and furniture; general contract (lately noted) let to N. L. Nelson & Co., St. James Bldg., Jacksonville, Fla.

Fla., Sarasota.—M. E. Church South let contract to S. D. Morrow, Madison, Fla., to erect building; 90x60 ft.; Greek style; basement; terra-cotta roofing; cost \$10,000; Bonfoey & Elliott, Archts., Tampa; lately noted. (See Machinery Wanted.)

N. C., Spencer.—Calvary Lutheran Church, Rev. Geo. H. Cox, pastor, will erect building; Rowan granite; cost \$6000; 40x60 ft.; contracts let.

Tenn., Friendship.—Methodist church let contract to P. A. Enlee, Martin, Tenn., to erect building on Depot St.; cost \$6000.

Va., Roanoke.—Belmont Baptist Church let contract to C. H. Turner to erect building; brick; concrete foundation; slate roof; cost \$20,000.

W. Va., Murphystown.—Baptist Church let contract to R. S. Piersol, Route No. 2, Parkersburg, W. Va., to erect bldg.; 32x42 ft.; cement block; asbestos shingle roof; Stephen Davidson, Archt., Parkersburg, W. Va. (Lately noted.)

## CITY AND COUNTY

Ala., Talladega—Jail.—Talladega county let contract to Pauly Jail Building Co., St. Louis, at \$8544 to remodel jail; H. B. Whealock, Archt., Birmingham, Ala. (Lately noted.)

La., Rayville—Jail.—Richland Parish Police Jury let following subcontracts for jail: Pauly Jail Building Co., St. Louis, Mo.; Rayville (La.) Supply Co. and Peoples Light & Power Co., Rayville; amount of subcontracts, including toolproof steel work heating, plumbing, lighting, roof, mill work and hardware, \$7176; Favrot & Liavauds, Archts., New Orleans, La.; general contract (lately noted) let to J. W. Wright, Rayville.

Va., Richmond—Resthouses.—City let contract to E. C. Woodward, Richmond, to erect

resthouse in Byrd Park; 60x60 ft.; slate roof; cost about \$7000; Carnal & Johnston, Archts., Richmond. (Lately noted rejecting bids.)

## COURTHOUSES

La., Bastrop.—Falls City Construction Co., Louisville, Ky., general contractor to erect courthouse for Morehouse Parish Police Jury, let contract to Home Heating & Plumbing Co., Monroe, La., for heating and plumbing. (Lately noted.)

Tenn., Ashland City.—Cheatham county let contract to Slayden & McNabb, Waverly, Tenn., to erect courthouse; R. E. Turbeville, Archt., Nashville, Tenn. (Lately noted.)

## DWELLINGS

Ark., Little Rock.—S. S. Harris let contract to Brookes Bros., 1721 Tzord St., Little Rock, to erect 1½-story residence; cost \$6000; tile roof; hot-air heat to cost \$450; Thos. Harding, Archt.; L. S. Stahl, Little Rock, has contract for sheet metal and tile roof. (Brookes Bros. lately noted to erect dwelling.)

D. C., Washington.—W. B. Howe will expend \$10,000 to remodel dwelling; ordinary construction; tin and slate roof; hot-air heat; electric lighting; W. B. Wood, Archt.; contract (lately noted) let to Page Construction Co., 204 Hibbs Bldg., Washington.

D. C., Washington.—A. R. Townsend let contract to Geo. A. Forbes, 416a Warner St., N. W., Washington, to erect 2-story brick dwelling at 401 R. C. Church Rd., and 392-396 Fourth St. N. W.; cost \$16,500; Hunter & Bell, Archts., 1421 H. St. N. W., Washington.

D. C., Washington.—E. H. Gottwals let contract to D. B. Gottwals, 3123 Warder St., N. W., Washington, to erect nine 2-story brick dwellings at 510-12 Lamont St.; cost \$25,500; A. E. Landvoigt, Archt., 1338 G. St. N. W., Washington.

D. C., Washington.—H. E. Allanson, 1736 G. St. N. W., let contract to C. M. Chamay, 629 8th St. S. E., to erect \$3000 residence at 2300 25th St. N. W.

D. C., Washington.—S. K. Terry let contract to H. F. Mandler, 702 11th St. N. W., to erect 2-story frame dwelling at 4901 Wisconsin Ave.; cost \$3500.

Fla., Indian Rocks (not a postoffice).—Margaret Smith has plans by and let contract to J. H. Bench, Tampa, to erect residence; 38x73 ft.; 9 rooms; fireproof; reinforced concrete; cement shingles; fireplaces; cost \$4000. L. W. Smith, Tampa, lately noted at Flin., Dunedin, to erect dwelling.)

Fla., Jacksonville.—J. H. Elton is reported to have let contract to J. E. Rainey, Jacksonville, to erect 2-story frame residence on Center St.; cost \$3000.

Fla., Jacksonville.—Mrs. N. W. Redmond, Park St., let contract to Buckland & Fitchner, Jacksonville, to erect dwelling on Riverside Ave.; 44x32 ft.; ordinary brick-veneer construction; tile roof; hot-air furnace; cost \$8000; Talley & Summer, Archts., Jacksonville. (Lately noted.)

Fla., Orlando.—J. L. Giles will erect residence on Lake Lucerne; ordinary construction; tapestry brick; slate roof; cost (without mechanical equipment) \$25,000; hot-air heat to cost \$750; L. P. Hutton, Archt., Orlando and New York; Henry Green, contractor, Orlando.

Ga., Albany.—D. H. Redfearn let contract to R. S. Smith, Albany to erect bungalow; cost \$3000; plans by M. J. Reidy, Albany.

Ga., Albany.—T. A. West let contract to R. S. Smith, Albany, to erect bungalow; cost \$3000.

Ga., Atlanta.—W. R. Hollingsworth let contract to J. B. McConnell, Atlanta, to erect residence; 1½ stories; frame; steam heat; hardwood floors; cost \$3500 to \$4000; E. F. N. Everett, Archt., 508 Grand Bldg., Atlanta. (Lately noted.)

Md., Baltimore.—J. M. Langrall, 36 N. Patterson Park Ave., has plans by and let contract to E. G. Turner, Bateman Ave., Baltimore, to erect residence at Carlisle & Garrison Aves.; 2½ stories; frame; 30x44 ft.; cost \$6500.

Md., Baltimore.—Chas. C. Charst let contract to C. E. Litzinger, 368 Falls Rd., Baltimore, to erect seven 2-story brick dwellings on Merriman's La. and Evans Rd.; cost \$7500; F. E. Beall, Archt., 306 St. Paul St., Baltimore.

Md., Baltimore.—W. G. Buckley has plans by H. A. Knott, 1340 N. Eden St., Baltimore, for cottage on Chatham Rd.; 2½ stories; frame; 28x33 ft.; mill construction; slate roof; cost \$4900; steam heat to cost \$500; gas and electric lighting; construction by Mr. Knott.

Md., Baltimore.—Jos. L. White Realty Co. has plans by and let contract to Chas. Broring, 9 N. Potomac St., Baltimore, to erect 20 dwelling; 14x45 ft.; brick; Carey's roof; hot-air heat. (Lately noted.)

Md., Baltimore.—Kennedy Land & Improvement Co. let contract to J. B. Yeatman, 472a Pimlico Blvd., Baltimore, to erect 30 dwellings in 2300 block Cecil Ave.; 2 stories; brick; cost \$55,000; Stanislaus Russell, Archt., 3400 Clifton Ave.

Md., Baltimore.—G. Edwin Dowell, Jr., 408 W. Baltimore St., will expend \$14,000 to erect dwelling; 43x43 ft.; ordinary construction; slate roof; hot-water heat; Edw. L. Palmer, Jr., Archt., Roland Park, Md.; contract (lately noted) let to Edw. G. Turner, 3406 Bateman Ave., Baltimore.

Mo., St. Louis.—Oliver Blanke let contract to E. Matthiesen, St. Louis, to erect 2-story dwelling at 4053 Magnolia Ave.; cost \$5000.

Mo., St. Louis.—F. W. Browning let contract to Wm. Knapp to erect two 1-story dwellings at 4715-17 Ray St.; cost \$4000.

Mo., St. Louis.—John Gebken let contract to J. Heun & Son, St. Louis, to erect 2-story dwelling at 2828 Sidney St.; cost \$4500.

Mo., St. Louis.—William Seibert let contract to H. Beetz, 2664 Nebraska Ave., St. Louis, to erect 2-story store and dwelling at 3801 Wyoming St.; cost \$7500.

N. C., Charlotte.—John Paul Lucas will erect residence in Myers Park; 9 rooms; shingle roof; hot-air heat; electric lighting; cost \$5000; S. T. Vaughn, Archt., Charlotte; contract let to Enterprise Realty Co.

N. C., Charlotte.—Geo. Stephens will erect \$10,000 residence on Harvard Pl.; contract let to Thiles-South Realty Co.

N. C., Greensboro.—W. A. Hewitt let contract to W. C. Bain to erect residence at Elm St. and North Park Drive.

N. C., Lumberton.—T. A. McNeill, Jr., let contract to H. G. Jones to erect dwelling; cost \$4000; J. M. Russell, Archt., Lumberton.

Tenn., Chattanooga.—Sam'l. B. Smith let contract to Bridley & Bryant, Chattanooga, to erect dwelling at Signal Mountain; 1½ stories; cost \$3000; Smith & Carter, Archts., Montgomery, Ala. (Lately noted.)

Tenn., Memphis.—E. F. Carroll let contract to H. W. Fisher, Memphis, to erect 2-story brick-veneer residence at 132 N. Evergreen St.; cost \$4250.

Tenn., Memphis.—P. P. Van Vleet let contract to O. L. Slater to erect 1½-story frame residence at 325 N. Watkins St.; cost \$4250.

Tenn., Memphis.—Peter Grant let contract to H. H. Higbee, Memphis, to erect two residences at 405 and 425 N. Garland Pl.; cost \$4000.

Tenn., Memphis.—Stonewall Land Co. let contract to H. Diugach, Memphis, to erect 1-story frame residence at 1537 N. Parkway; cost \$3250.

Tenn., Memphis.—J. C. Wilson let contract to J. M. Harris, Memphis, to erect residence; 2 stories; frame and stucco; cost \$18,000; Jones & Furbringer, Archts., Memphis.

Tex., Chapel Hill.—J. J. Shaver let contract to J. B. Heartfield to erect residence; cost \$5000.

Tex., El Paso.—I. B. Walker let contract to G. W. Jolly to erect residence; 40x42 ft.; cost (without mechanical equipment) \$7000; brick; wood finish; composition shingle roof; hot-air heat to cost \$250; electric wiring to cost \$100; sidewalks to cost \$200; O. H. Thorman, Archt., R. B. Bldg., El Paso. (Lately noted) not to erect 3 dwellings.)

Tex., Houston.—C. B. Brace will erect 2-story residence; cost \$6000; J. H. Armstrong, Contr.

Va., Norfolk.—Dr. Powhatan S. Schenck let contract to L. McCloud, Norfolk, to erect residence on Armistead Bridge Rd.; 2 stories; brick and frame; cost \$5400.

Va., Norfolk.—W. H. Lesner let contract to Chas. H. Plummer, Norfolk, at \$4332 to erect residence; 38x58 ft.; slate roof; hot-air heat; electric lighting; W. T. Zepp, Archt., Norfolk. (Lately noted.)

#### GOVERNMENT AND STATE

Ala., Montgomery — Postoffice.—Treasury Dept., Oscar Wenderoth, Supervising Architect, Washington, D. C., let contract at \$7639 to Algernon Blair, Montgomery, for changes in parcel post terminal and stamp department of postoffice; contract includes

elevator, swingroom in basement, additional space in main corridor, etc.

Ga., Cartersville—Postoffice.—Treasury Department, Oscar Wenderoth, Supervising Archt., Washington, let contract at \$42,574 to John W. Emery, 1524 Sansom St., Philadelphia, Pa., to erect postoffice building; one story and basement; 4075 sq. ft. ground area; brick facing; slate roof. (Lately noted.)

Mo., Kansas City — Postoffice.—Treasury Dept., Oscar Wenderoth, Supervising Archt., Washington, D. C., let contract at \$6249 to Grohne Contracting Co., Joliet, Ill., to repair and paint postoffice.

Tex., Clarksville—Postoffice.—Treasury Department, Oscar Wenderoth, Supervising Archt., let contract to Geo. A. Shaul, Seneca, Kans., to erect postoffice; 48x78 ft.; cost (without mechanical equipment) \$36,000; first floor fireproof; composition roof; heating and plumbing to cost \$5000; gas and electric lighting to cost \$1200. (Lately noted.)

#### HOTELS

Ia., Mansfield.—H. J. Sheppard let contract to Corbin Bros., Mansfield, to erect hotel at 209 Washington St.; cost \$23,000. (Lately noted.)

S. C., Chester.—T. E. Whitesides let contract to W. W. Blair, Sharon, S. C., to erect hotel and store building; 40x80 ft.; 2 stories; metal roof; cost \$10,000; semi-indirect electric lighting; J. S. Starr, Archt., Rock Hill, S. C.; construction May 1. (Lately noted.)

Tex., El Paso.—Crosby Co. let contract to Jennings & Wood, El Paso, to erect store and hotel building; 100x120 ft.; ordinary construction; composition roof; cost (without mechanical equipment) \$37,000; hot-water heat to cost \$3500; Trost & Trost, Archts., El Paso.

#### MISCELLANEOUS

D. C., Washington—Barn.—Mrs. B. Waltz let contract to repair barn and dwelling. (See Dwellings.)

Ia., New Orleans—Sanitarium.—French Society de Bienfaisance let contract to Jas. Geary, Perrin Bldg., New Orleans, to erect sanitarium; cost (without mechanical equipment) \$20,000; brick and concrete; composition roof; steam heat; Paul Andry, Archt., 510 Tulane Newcomb Bldg., New Orleans. (Lately noted.)

Mo., St. Louis—Restaurant.—W. H. & S. L. Langdale let contract through T. P. Barnett Co., Archt., Central National Bank Bldg., St. Louis, to J. E. Williams, St. Louis, to erect restaurant on Delmar Ave.; 2 stories and basement.

N. C., Charlotte—Clubhouse.—Mecklenburg Country Club let contract at \$12,500 to Wilkerson-Moffett Co., Charlotte, to erect dormitory building and ballroom to clubhouse; former to contain lockers, shower baths and 11 dormitory-rooms; ballroom 36x50 ft.; Hunter & Gordon, Archts., Charlotte.

#### SCHOOLS

Fla., Alva.—School Board let contract to erect high school; 2 stories; asphalt roof; cost \$15,000; W. L. Redditt, Archt., Tampa, Fla.

Fla., La Belle.—School Board let contract to erect high school; 2 stories; brick; asphalt roof; cost \$20,000; W. L. Redditt, Archt., Tampa, Fla., Archt.

Fla., Orlando.—School Board let contract to Cahow & Parker, Tampa, at \$27,945 to erect school; ordinary construction; composition roof; heating not decided; Henry Green, Supervising Archt. (Lately noted.)

Ia., Hammond.—School Board let contracts as follows to erect school building: At \$23,273.51 to Euel & Co. for building; at \$3550 to Gainne Co. for plumbing and heating; at \$400 to Crescent Electric Co., New Orleans, for electric lighting. (Lately noted.)

Ia., New Orleans.—City let contract to M. Chesee & Co., New Orleans, at \$31,498 to erect school; 1 story and basement; frame and stucco. (Lately noted.)

Mo., Bismarck.—Board of Education let contract to Merrell S. McCarty, 221 Leath Bldg., St. Louis, to erect school; 62x77 ft.; 2 stories and basement; 8 rooms; Barrett specification roof; cost \$13,200; John A. Lange, Archt., 1100 Security Bldg., St. Louis. (Lately noted.)

Mo., Jefferson City.—Board of Education let contract at \$54,000 to L. W. Dumaz Construction Co., Columbia, Mo., to erect high school; equipment and furnishings to cost \$10,000 additional. (Lately noted.)

Mo., Kansas City.—Board of Education let contract to Sledhoof Construction Co., Kansas City, to erect Karnes School at Pacific and Holmes St.; completion by Aug. 15,

1915; Chas. A. Smith, Archt., Kansas City. (Lately noted.)

Tex., Dallas.—Board of Education let contract at \$13,325 to H. H. Cohen, Dallas, to erect 6-room addition to James S. Hogg School; reinforced concrete faced with brick; completion by Sept. 1. (Lately noted.)

Ia., Ferrum.—Ferrum Industrial School for Girls let contract to Field & Turner, Builders' Exchange, Roanoke, to erect dormitory to accommodate 75; brick; concrete foundation; 3 stories; 41x78 ft.; Cortright metal shingle roof; cost \$14,000; heating and lighting not decided; contract for plumbing let to Roanoke (Va.) Sheet Metal Co.; will install 2 H. P. gasoline engine and pump; G. R. Ragan, Archt., Roanoke; will also erect administration building. (Lately noted.)

#### STORES

Ia., Red Bay.—J. B. & R. Tiffin let contract to P. C. Gamong, Red Bay, to erect store; 100x100 ft.; cost \$8000; fireproof; metal roof; International Steel & Iron Construction Co., Archt., Evansville, Ind. (Lately noted.)

Ark., Mountain View.—Brewer Bros. let contract to Robinson & LaRoe to erect stone business building on S. Main St.; 25x60 ft.

D. C., Washington.—Miss F. Creamer has plans by and let contract to W. C. Allard, 707 G St. N. W., Washington, to repair 4-story brick store and flat at 1402 14th St.; cost \$6400.

D. C., Washington.—Wm. Gibson let contract to M. A. Weller, 602 F St. N. W., to erect 3-story brick store at 917 G St. N. W., cost \$13,123; N. T. Haller, Archt., Corcoran Bldg., Washington.

Fla., Jacksonville.—F. W. Phillips let contract to erect store and apartment building. (See Apartment-Houses.)

Fla., Leesburg.—G. W. Wrennick let contract to J. M. Knight, Leesburg, to erect business building; 27x10 ft.; 2 stories; brick; stone trimmings; 2 stores on first floor; offices above.

Ga., Athens.—Mendal Morris let contract to J. W. Watson & Sons, Athens, to erect building; 2 stories; 30x22 ft.; cost \$5500; J. W. Barnett, Archt., Athens.

Ga., Athens.—Talmage Bros. & Co. will expend \$22,500 to erect store and warehouse; fireproof; brick and steel; metal roof; plate-glass double-store front; cost \$15,000; Wm. E. Beilhorz, Archt. (Lately noted.)

Tex., Chapel Hill.—H. P. Perkins and Dr. W. R. Campbell let contract to J. G. Sharer to erect store; 2 stories; brick.

Tex., El Paso.—Crosby Co. let contract to erect store and hotel building. (See Hotels.)

Tex., Teague.—W. R. T. and Miss Etta Drumwright let contract to L. E. Adkins, Teague, to erect store building; 50x100 ft.; cost \$6000; ordinary construction; J. T. Patterson, Archt., Teague. (Lately noted.)

Tex., San Antonio.—Schwartz & Cohen are reported to have let contract to erect business building at Commerce and Steves Sts.; 1 story; reinforced concrete; 4 stores; cost \$5000; Leo M. J. Dielmann, Archt., San Antonio, Tex.

Tex., Waco.—Frank Keton, 316 S. 3d St., engaged Smith & Petzold, 518 Indiana Ave., Waco, to supervise construction of building at 3d and Jackson Sts.; 50x100 ft.; semi-mill type; cost \$10,000; gravel roof; Edw. Reed, Archt. (Lately noted.)

Va., Roanoke.—R. H. Thomas, 23 Hanover St., Baltimore, Md., and W. R. Martin let contract to Wade & Graham, Roanoke, to erect store building; 3 stories; brick; lower floor for stores and upper floors for offices; cost \$15,000; slag roofing; cost of heating plant, \$1200; lighting, \$250; Frye & Chesterman, Archts., Roanoke.

W. Va., Moundsville.—O. V. Ault let contract to Thos. Shimp, Moundsville, to erect business block on Jefferson Ave.; 2 stories; brick and steel; buff brick front.

Electric Co., Tulsa, has contract for wiring at \$500. (Lately noted.)

S. C., Anderson.—J. L. McGee let contract to J. E. Barton to erect store to replace burned structure. (Lately noted.)

S. C., Chester.—T. E. Whitesides let contract to erect store and hotel building. (See Hotels.)

S. C., Greenville.—W. N. Watson let contract to Jordan-Munn Constr. Co., Greenville, to erect business building at Brown and Coffee Sts.; 3 stories and basement; 40x100 ft.; mill construction; tar and gravel roof; electric lighting; power type of elevator; F. H. & J. G. Cunningham, Archts., Greenville. (Lately noted.)

Tenn., Knoxville.—Col. L. D. Tyson let contract to L. A. Galyon & Son, Knoxville, to erect store and apartment building at Gay St. and Park Ave.; 2 stories and basement; 60x140 ft.; ordinary construction; gravel roof; steam heat; gas and electric light; cement sidewalks; cost (without mechanical equipment) \$21,000; contract for heating and plumbing let to McGinn & Reiche at \$2900; A. B. Baumann, Archt., Henson Bldg., Knoxville. (Lately noted.)

Tenn., Memphis.—R. Brinkley Snowden let contract to W. D. Lewis & Co., Memphis, to remodel building at 6-8 N. 2d St.; cost \$40,000.

Tenn., Waverly.—J. P. Cowen & Co. have plans by and let contract to S. W. Slayden & Co. to erect general store; 30x115 ft.; concrete construction; metal roof; cost \$550 to \$600. (Lately noted.)

Tenn., Waverly.—Slayden & McNabb have contract to erect 3 buildings—20x125 ft., 40x105 ft. and 22x70 ft.; R. E. Turbeville, Archt., Nashville, Tenn.; lately noted. (See Machinery Wanted.)

Tex., Dallas.—G. W. Schoellkopf let contract to W. J. Curtis to remodel building on Main St.; 50x100 ft.; white enamel brick; plate-glass double-store front; cost \$15,000; Wm. E. Beilhorz, Archt. (Lately noted.)

Tex., Chapel Hill.—H. P. Perkins and Dr. W. R. Campbell let contract to J. G. Sharer to erect store; 2 stories; brick.

Tex., El Paso.—Crosby Co. let contract to erect store and hotel building. (See Hotels.)

Tex., Teague.—W. R. T. and Miss Etta Drumwright let contract to L. E. Adkins, Teague, to erect store building; 50x100 ft.; cost \$6000; ordinary construction; J. T. Patterson, Archt., Teague. (Lately noted.)

Tex., San Antonio.—Schwartz & Cohen are reported to have let contract to erect business building at Commerce and Steves Sts.; 1 story; reinforced concrete; 4 stores; cost \$5000; Leo M. J. Dielmann, Archt., San Antonio, Tex.

Tex., Waco.—Frank Keton, 316 S. 3d St., engaged Smith & Petzold, 518 Indiana Ave., Waco, to supervise construction of building at 3d and Jackson Sts.; 50x100 ft.; semi-mill type; cost \$10,000; gravel roof; Edw. Reed, Archt. (Lately noted.)

Va., Roanoke.—R. H. Thomas, 23 Hanover St., Baltimore, Md., and W. R. Martin let contract to Wade & Graham, Roanoke, to erect store building; 3 stories; brick; lower floor for stores and upper floors for offices; cost \$15,000; slag roofing; cost of heating plant, \$1200; lighting, \$250; Frye & Chesterman, Archts., Roanoke.

W. Va., Moundsville.—O. V. Ault let contract to Thos. Shimp, Moundsville, to erect business block on Jefferson Ave.; 2 stories; brick and steel; buff brick front.

#### THEATERS

Tenn., Memphis.—F. Henkel let contract to J. H. Moselage, Memphis, to erect picture theater at 1329 S. Lauderdale St.; cost \$4000.

#### WAREHOUSES

Mo., Athens.—Talmage Bros. & Co. let contract to erect store and warehouse. (See Stores.)

Md., Baltimore.—Wm. Gude, 2-6 E. Perry St., has plans by and let contract to Chas. Millske, 22 N. Chester St., Baltimore, to erect warehouse at 109-113 South St.; 4 stories; brick; 60,536 ft.; ordinary construction; slag roof; gas lighting; cost \$10,000. (Lately noted under Stores.)

Md., Baltimore.—James Cavanaugh let contract to Wm. A. Parr, 17 N. Frederick St., Baltimore, to erect warehouse at 201-03 S. Central Ave.; 3 stories; brick; 30,670 ft.; cost \$4000; Frederick Stein, Archt.

Md., Baltimore.—Bagby Furniture Co. let contract to John Hiltz & Sons, 3 Clay St., Baltimore, to erect warehouse and office building. (See Woodworking Plants.)

Mo., St. Louis.—Schoellhorn & Albrecht let

contract to Jas. H. Bright Building Co., 706 Chestnut St., St. Louis, to erect warehouse at 2646-52 Locust St.; 2 stories; cost \$12,000. Mo., St. Louis.—H. W. Elliot, care of Hydraulie Press Brick Co., let contract to J. H.

Bright Contracting Co. to erect warehouse for Monument Plumbing Supply Co.; 50x134 ft.; 1 story; ordinary construction; composition roof; cost \$10,000; G. F. Bruggerman, Archt. (Lately noted.)

## RAILROAD CONSTRUCTION

### RAILWAYS

Ark., Fayetteville.—W. H. Harvey, Monte Ne, Ark., says there is no truth in the recent press report that he is interested in plans to build a railroad from Memphis, Tenn., to Coffeyville, Kans.

Ark., Fort Smith.—The Oil Belt Traction Co. of Oklahoma City, Okla., has applied for a franchise to enter Fort Smith, proposing to build a railroad from Fort Smith to Shawnee, Okla., about 150 mi. Rights of way, station sites and bonuses are being sought along the proposed route. Altogether 588 mi. of lines are projected.

Fla., Bartow.—A. F. Langford of Bartow (formerly of Valdosta, Ga.) has been given contract for an extension of the Seaboard Air Line from Bartow to Lake Wales and beyond, about 25 mi. W. D. Fauchette, Norfolk, Va., is Ch. Engr.

Fla., Buena Vista.—The Florida East Coast Ry. contemplates building a new yard at Buena Vista. M. Riddle, St. Augustine, Fla., is Gen. Mgr.

Ga., Milltown.—Waycross & Western Ry. Co., A. K. Sessions of Waycross, Ga., Prest., contemplates an extension from Milltown via Nahira and Pavo to Pelham, Ga., 65 or 70 mi.

Ky., Central City.—South Kentucky Power Co., capital \$100,000, has obtained charter in Delaware to operate with electric or other power street and interurban railways. Incorporators are F. D. Buck, G. W. Dillman and M. L. Horry of Wilmington, Del. This may be the plan in which Gen. T. C. Dupont and Daniel Caufield of Wilmington, S. J. Gish and James Small of Central City, Ky., were reported interested to build from Central City to Greenville and Drakesboro.

Ky., Fulton.—The contract awarded to the Robert Grace Contracting Co. of Pittsburgh by the Illinois Central R. R. includes part of the work on second track between Fulton and Memphis. Work per mile is about 4300 cu. yds. on cuts and 18,000 cu. yds. on fills. Maximum grade one-half of 1 per cent.; maximum curvature 4 degrees. Three through-girder bridges will be required, respectively, 60, 80 and 108 ft. long. A. S. Baldwin, Chicago, is Ch. Engr.

Ky., Winchester.—Louisville & Nashville R. R. has completed the first 5 mi. of track on its new 26 mi. line from Winchester to Irvine, Ky.

La., Algiers.—Morgans Louisiana & Texas R. R. Co. (Southern Pacific system) proposes to enlarge terminal and depot facilities at Algiers. E. B. Cushing, Houston, Tex., is engineer of construction.

Okla., Joiner.—F. B. McElroy of Ardmore, Okla., is reported interested in plans to build an electric railway from Joiner to the Healdton oil fields.

Okla., Stillwell.—Oil Traction Belt Line Co. of Stillwell is reported organized to build an electric railroad from Stillwell to Blackwell to Miami, and thence back to Stillwell, about 300 mi. The Board of Trade may be able to give information.

S. C., Charleston.—Tracklaying on the Charleston Northern R. R. has begun at the Charleston end of the line and will soon begin from Andrews, out of which grading has advanced to the Santee River. Construction is now in progress over practically all the road. W. R. Bonsal, Hamlet, N. C., is Prest.

Tenn., Clarksville.—Further particulars about the plan to build a railway from Clarksville to Big Rock, Weavers Store, New Providence and other places show that it would be about 37 mi. long from Clarksville to Dover, including, besides the other places mentioned, Lafayette and Rose Hill. Edward P. Martin of Big Rock, Cyrus Cobb and others, together with J. E. Hurd, a civil engineer, have presented the plan to the Clarksville Chamber of Commerce. Estimated cost of construction \$560,000.

Tenn., Cookeville.—Rights of way are being obtained and subscriptions secured for a contemplated extension of the Tennessee, Kentucky & Northern R. R. from Algood via Cookeville to Sparta, Tenn., about 20 mi. H. Adkins is Gen. Supt. and Ch. Engr. at Livingston, Tenn.

Tex., Brenham.—It is contemplated to build an interurban railway from Brenham to Independence, about 12 mi., and thence to other

points. Young Men's Business Association of Brenham is interested.

Tex., Bryan.—The Bryan-College Interurban Ry., O. E. Gammil, Mgr., is to be extended from near Fountain, the present end of track, to Stone City.

Tex., Dallas.—Belmont Electric Co. of Dallas, capital \$5000, is incptd. to construct electric railroads in and near Dallas; incorporators, J. A. Sanders, H. W. Brouse and E. W. Morton, Jr.

Tex., Dunlap.—Nashville, Chattanooga & St. Louis Ry. is reported surveying for the proposed branch from Dunlap to lands of the Chattanooga Iron & Coal Co. in Brush Creek Gulch. H. McDonald, Nashville, Tenn., is Ch. Engr.

Tex., Greeneville.—The White Lumber Co. of Johnson City, Tenn., says a report, has obtained control of the Greeneville & Nolichucky Ry., 12 mi. long. Extensions may be made.

Tex., Gainesville.—Local capitalists are planning construction of an interurban railway to different towns in this (Cooke) county. The Board of Trade may be able to give information.

Tex., San Antonio.—San Antonio & Austin Interurban Ry. Co. has obtained 95 per cent. of right of way for its proposed line. Construction announcement is expected soon, according to Vorles P. Brown, Prest., San Antonio.

Tex., San Antonio.—It is announced that preliminaries are almost complete for beginning construction of the proposed terminal station of the Missouri, Kansas & Texas Ry., and that the Mercantile Trust Co. of St. Louis will be interested in the plan, which will require about \$3,000,000 financing. A. M. Acheson, Dallas, Tex., is chief engineer.

Tex., San Antonio.—San Antonio, San Jose & Medina Interurban Ry. Co., capital stock \$100,000, is the name of the new company incorporated to build a line from San Jose to Kirk, Tex., about 15 mi., to connect there with the Artesian Belt R. R. A. D. Powers is Prest.; L. S. Powers, managing director; C. A. Newton, Secy., and A. J. Bell, general counsel at San Antonio. Texas Construction Co. (J. G. Miller and others) will make survey.

Tex., Slaton.—Concerning the recent report that the Santa Fe system contemplated an extension from Slaton to Fort Worth, about 230 mi., it is officially stated now that there is "nothing doing."

W. Va., Wheeling.—Wheeling Eastern Ry. Co., capital \$10,000, is chartered to build a line from Short Creek, W. Va., to West Alexander, Pa., about 20 mi., via Clinton, Potomac, etc. Incorporators are B. L. Rosenblum, Schnulbach Bldg., Wheeling; R. T. Manning, M. E. McGrail, George A. Feeney and R. J. Smith.

### STREET RAILWAYS

D. C., Washington.—American Toy R. R. Co., capital \$100,000, has obtained a charter in Delaware to generally contract for and build railroads. Incorporators are T. C. Spelling of New York, F. L. Peckham, 1421 M St. N. W., and George L. Peckham, Riggs Bldg., both of Washington.

Fla., Miami.—Ordinance is published to grant to the Miami Traction Co. franchise to build its proposed street railway, to be operated by either electricity or gasoline motive power. It is now being considered by the City Council. Incorporators, D. T. Davis, J. M. Barr, C. L. Casterline, A. N. Bryson, W. P. Black, D. M. Hadley, U. G. Baker, J. H. Tatum, B. B. Tatum, S. M. Tatum and J. R. Tatum.

La., Algiers.—Riverside Southern R. R. is to be built from the end of the Algiers Ry. at the immigration station to Riverside, 3½ mi. F. L. Kinsman is Prest. Joseph A. Blythe is also interested.

N. C., Winston-Salem.—The Southern Public Utilities Co. is considering a proposition that it build an extension through West Salem.

Tenn., Clarksville.—The Clarksville & Dunbar's Cave Ry. Co. proposes to build an extension of 3 mi. to the cave upon subscription of \$12,000 by citizens of Clarksville to notes of the company. A. C. Murray is Gen. Mgr. and V. P. L. E. Fischer of St. Louis is to build the road. F. N. Smith, Prest. Clarksville Chamber of Commerce,

and others are interested, several subscriptions being already promised.

Tenn., Knoxville.—Knoxville Ry. & Light Co. is preparing to build double track all the way between Knoxville and Fountain City, widening culverts and trestles.

Tenn., Memphis.—Survey has been made to extend the Florida street line of the Memphis Street Ry. to the Nonconnah yards of the Illinois Central R. R., 2 mi.

Tenn., Nashville.—Detroit-Nashville Construction Co. has filed charter to build the street railway of the Nashville Traction Co.

Construction has begun. Incorporators, Strathearn Hendrie, Cameron Currie, W. E. Steger, W. J. Pulling, A. W. Willis, W. O. Vertrees and Urey Howard.

Tex., Dallas.—Dan. Sonnenhell, Prest. Lakewood Heights Co., has applied for a franchise to build a street railway through the Lakewood Heights property.

Tex., Dallas.—The Dallas Consolidated Electric Co. is considering a proposition from the Southern Methodist University that the Highland Park Street Ry. be extended to that institution.

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

**Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.**

### "WANTS"

**Agricultural Implements.**—C. E. Gordon, Box 721, Stuttgart, Ark.—Correspondence with manufacturers of farm machinery; view to representation.

**Air Compressor.**—Ratcliff & Truss, Jefferson County Savings Bank, Birmingham, Ala.—Air compressor. (See Engine (gasoline), etc., Birmingham.)

**Amusement Devices.**—Jackson-Clinton Motor Transit Co., E. J. Ellzey, Prest., Jackson, Miss.—Prices from time to time on equipment for pleasure resort.

**Automobiles.**—C. E. Gorton, Box 721, Stuttgart, Ark.—Correspondence with manufacturers of automobiles; view to representation.

**Bank Fixtures, etc.**—D. M. Quinn, Indianapolis, Ind.—Will probably want prices on safe, vault and other bank fixtures.

**Bleaching (Linters) Machinery.**—See Engineering.

**Boiler.**—Boston Brick Co., South Boston, Va.—125 to 150 H. P. boiler.

**Boiler Tubes.**—Eagle Pipe Supply Co., 29 Howard St., New York.—Two carloads 1½-in. and 2-in. second-hand solid drawn steel locomotive boiler tubes, 9 ft. long; 15 per cent. of these can be 8 ft. long.

**Boilers.**—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids May 19 to furnish two 20 H. P. boilers complete, schedule 689; delivery Portsmouth, N. H.; for copies of schedules apply to navy pay office nearest navy-yard.

**Bricks.**—Calvary Baptist Church, Rev. C. A. Jenkins, pastor, 716 Hawthorne Ave., Ginter Park, Richmond, Va.—Prices and samples of pressed brick for \$30,000 to \$40,000 church building.

**Brick Machinery.**—Andrew Johnson, Morristown, Tenn.—Prices on brick machine.

**Bridge Construction.**—Harris County, H. L. Washburn, Auditor, Houston, Tex.—Bids until May 11 to construct creosoted bridge across slough, near Cypress Creek, on Westfield Rd.; plans and specifications on file with County Engrs.

**Bridge Construction.**—Kanawha County Commrs., Charleston, S. C.—Bids until May 9 to construct highway bridge across Poca River near Monk Ford; profiles and specifications at office of F. G. Burdette, County Road Engr.

**Bridge Construction.**—Kanawha County Commrs., Charleston, S. C.—Bids until May 9 to construct highway bridge across Poca River near Monk Ford; profiles and specifications at office of F. G. Burdette, County Road Engr.

**Bridge Construction.**—State Highway Com., G. P. Coleman, Commr., Richmond, Va., and Augusta County, C. L. Scott, Highway Engr., Waynesboro, Va.—Bids at office of State Highway Commr., Richmond, to construct 2-span bridge across South River between Waynesboro and Basic City; one 80 ft. and one 81 ft. 8 in.; 3 bridges across South River near Stuart's Draft; one 37 ft. and two 18 ft. long; 2-span bridge across South River near Whistler's Mill; 90 ft. each; 12 and 16-ft. roadways; plans and specifications at office of State Highway Commr. and at office of County Highway Engr., Waynesboro.

**Bridge Construction, etc.**—Board of Improvement, Bridge Improvement Dist. No. 1, W. D. McLain, Chrman., Newport, Ark.—Bids until May 21 to construct reinforced concrete bridge, 40 ft. wide, 12-ft. span and earth fill approaches thereto containing about 40,000 cu. yds. earth; plans and specifications on application to Wm. J. Parks, Civil Engr., Citizens' Bank Bldg.

**Building Materials.**—Slayden & McNaughton, Waverly, Tenn.—Prices on pine framing, plate-glass, steel work, roofing, fireproof windows and doors, skylights, cypress window sash and yellow pine doors.

**Building Materials.**—Consolidated Engineering Co., 61 Gunther Bldg., Baltimore, Md.—Prices on building materials.

**Building Plans.**—Gillfillin & Houston, Atgts., Greenville, S. C.—Correspondence with architects relative to plans and specifications for apartment-house to cost \$60,000.

**Building Materials.**—Willson Chase Co., St. Petersburg, Fla.—Prices on brick and steel and electric lighting for \$20,000 to \$25,000 store and office building.

**Canal Construction.**—Pettus Branch Drainage Dist. and Rum Neck Drainage Dist., South Carolina.—Bids, addressed to Dr. S. Percival Wells, Holly Hill, S. C., about June 1, to construct about 2½ mi. canal 6 ft. wide by 2½ to 3 ft. deep in Pettus Branch; about 3½ mi. main canal in Rum Neck.

**Cars.**—J. E. Franks, 729 Candler Bldg., Atlanta, Ga.—5 or 6 narrow-gauge logging cars.

**Cars.**—Pennsylvania Equipment Co., West End Trust Bldg., Philadelphia, Pa.—Ten 2½-yd.-capacity end-dump cars, 36-in. gauge, for Western quarry; also 12 to 18 30-in. or 36-in. gauge second-hand cars for Pacific coast delivery, for hauling heavy ore measuring 11 to 12 cu. ft. to the ton, cars to be 60 to 100 cu. ft. capacity.

**Cash System.**—Willson-Chase Co., St. Petersburg, Fla.—Prices on cash system for store and office building.

**Cellulose Machinery.**—See Engineering.

**Cement.**—Dept. of the Interior, U. S. Reclamation Service, Washington, D. C.—Bids at office of U. S. Reclamation Service, 408 Commonwealth Bldg., Denver, Colo., until May 4 to furnish 146,000 bbls. Portland cement, f. o. b. cars at works of bidder. Information on application to Washington.

**Coal.**—U. S. Engr. Office, G. McD. Townsend, Col., Engrs., Custom-house, St. Louis, Mo.—Bids until May 13 to furnish 30,000 tons coal. Information on application.

**Coffee-parching Machinery, etc.**—E. H. Williams, 435 Carondelet St., New Orleans, La.—Semi outfit for parching coffee and filling packages; also printed ½ and 1-lb. paper bags glazed paper inside, with paper seals; bags for coffee and peanuts.

**Crane, etc.**—Sewerage and Water Board, F. S. Shields, Secy., 568 City Hall Annex, New Orleans, La.—Bids until June 17 to install under contract No. 62-D 15-ton hand-operated crane; contract No. 63-D, underground conduits; contracts Nos. 65 and 66-D, constructing lined and covered drainage canals.

**Cranes.**—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids May 26 to furnish 40-ton bridge crane with 5-ton auxiliary hoist; also 5-ton wall crane, schedule 6687; delivery Puget Sound, Wash.; for copies of schedules apply to navy pay office nearest navy-yard.

**Ditch Construction.**—Office of Quartermaster, Fort Washington, Md.—Bids until May 5 to dig and grade about 3900 ft. ditches and waste earth therefrom. Information on application.

**Drainage.**—See Crane, etc.

**Dredge Bucket (Clam Shell).**—Pennsylvania Equipment Co., West End Trust Bldg., Philadelphia, Pa.—Clam shell bucket with teeth; 7 to 10 cu. ft. capacity.

**Dredge.**—Thos. H. Rees, Lieut-Col., Engrs., Custom-house, San Francisco, Cal.—Bids until June 18 to construct sea-going hydraulic hopper dredge San Pablo. Information on application.

**Dredging.**—U. S. Engr. Office, C. W. Kutz, Maj., Engrs., 305 Southern Bldg., Washington, D. C.—Bids until May 6 to dredge in Anacostia River. Information on application.

**Dump Cars.**—See Cars.

**Electric Furnace.**—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids May 26 to furnish electric furnace for shrinking pit for 5-in. 50-cu. gun, schedule 6703; delivery Washington; for copies of schedules apply to navy pay office nearest navy-yard.

**Electric Signs.**—Board of Awards, Jas. H. Preston, Prest., Baltimore, Md.—Bids until May 6 to furnish and install interior electric signs, etc., in City Hall; drawings and specifications at office C. E. Stubbs, Inspector of Bldgs.

**Electrical Equipment.**—Selma Cotton Mill, Selma, N. C.—May want motors for complete equipment of mill.

**Electrical Equipment.**—Calvary Baptist Church, Rev. C. A. Jenkins, pastor, 716 Hawthorne Ave., Ginter Park, Richmond, Va.—Prices on electrical equipment for \$30,000 to \$40,000 church building.

**Electrical Machinery.**—Union Trust Co., Little Rock, Ark.—Prices on motors for Little Rock Auto Garage repair shop.

**Electrical Machinery.**—See Engines, Condensers, etc.

**Electrical Machinery.**—L. W. Pennington, Mayor, Eatonton, Ga.—Prices on generators, motors, wire, transformers and general equipment for hydro-electric plant.

**Electrical Machinery.**—Engr. Depot, U. S. Army, Jos. E. Kuhn, Lieut-Col., Engrs., Washington Barracks, D. C.—Bids until May 7 to furnish 2 motor generating sets, capacity 10 K. W., 115-volt direct current, together with necessary starting compensators and field rheostats. Information on application.

**Elevator.**—Navy Dept., Bureau of Sup-

piles and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids May 26 to furnish electric freight elevator, schedule 6704; delivery Charleston, S. C.; for copies of schedules apply to navy pay office nearest navy-yard.

**Elevators.**—Willson-Chase Co., St. Petersburg, Fla.—Prices on electric passenger and hand-power elevators for \$20,000 to \$25,000 store and office building.

**Engine.**—Town Clerk, Berry, Ala.—Prices on gasoline engine.

**Engine (Gasoline).**—See Sawing Machinery.

**Engine.**—Alexandria County Electric Lighting Co., Francis R. Weller, Consult. Engr., Hibbs Bldg., Washington, D. C.—Bids on 1000 K. W. steam turbine unit with condenser, after completing new building.

**Engine (Gasoline), etc.**—Ratcliff & Truss, Jefferson County Savings Bank, Birmingham, Ala.—Prices on gasoline engine and air compressor, combined or detached.

**Engines, Condensers, etc.**—C. M. McCord, Atlantic Beach, Fla.—Prices on two 250 H. P. compound condensing engines, direct-connected to 100 K. W., 3-phase, 2300-volt alternators; condenser for above; 10-ton refrigeration unit.

**Engines (Sun-driven).**—Banner Lumber Co., Meridian, Miss.—Data and prices on sun-driven engines and addresses of manufacturers.

Prices on furniture for \$10,000 church building at Sarasota, Fla.

**Gas Plant.**—C. D. Hammond, Commr., Public Works, St. Petersburg, Fla.—Bids received and opened May 4 for complete gas plant; plans obtainable from J. B. McCrary Co., Engr., 1405 Third National Bank Bldg., Atlanta, Ga., on deposit \$5; specifications on request.

**Glass.**—Baptist Church, W. L. Windrow, Chrmn. of Bldg. Comm., Hondo, Tex.—Prices on art glass.

**Glass (Art).**—Rev. B. E. Stanfield, Fairmont, N. C.—Data and prices on art glass for church windows.

**Heating Plant.**—Fred Hildebrandt, 3926 Labadie Ave., St. Louis, Mo.—Prices on hot-water boiler and supplies for heating.

**Heating Plant.**—McGregor & Hingle, Bartlesville, Okla.—Prices on heating plant for \$100,000 bank and office building.

**Heating Plant.**—E. R. Brown, 209 W. 13th St., S. Richmond, Va.—Prices on steam-heating plant for \$80,000 apartment building at Petersburg, Va.

**Heating Plant.**—Presbyterian Church, Rev. J. H. Kirkpatrick, pastor, Rogers, Ark.—Prices on heating plant.

**Heating Plant.**—Calvary Baptist Church, Rev. C. A. Jenkins, pastor, 716 Hawthorne Ave., Ginter Park, Richmond, Va.—Prices on heating plant for \$30,000 to \$40,000 church building.

14 to furnish and install lighting fixtures at U. S. postoffice and courthouse, New Orleans, La.; drawings and specifications at office of custodian at site, or at this office at discretion of Supervising Archt.

**Locomotive.**—J. E. Franks, 729 Candler Bldg., Atlanta, Ga.—Narrow-gauge Shay locomotive, about 20 tons weight.

**Logging Machinery.**—See Trailers.

**Loading Machinery (Log).**—See Skidder, etc.

**Locomotive.**—Stimson Veneer & Lumber Co., J. V. Stimson, Prest., Memphis, Tenn.—Prices on standard gauge engine for logging purposes.

**Louvers (Metal).**—Panama Canal, F. C. Boggs, Gen. Purchasing Officer, Washington, D. C.—Bids in triplicate until May 9 to furnish and erect movable metal louvers and operating mechanisms for permanent shop buildings; blanks and general information relating to this circular (No. 34) may be obtained from this office or offices of assistant purchasing agents, 21 State St., New York; 614 Whitney-Central Bldg., New Orleans, and 1036 North Point St., San Francisco; also from U. S. Engr. offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill.; Commercial Club, Tacoma, Wash., and Chamber of Commerce, Portland, Ore.

**Machine Tools.**—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids May 26 to furnish disc grinder and roll sander, schedule 6705; delivery Annapolis, Md.; radial wall drill, motor-driven; punching machines, single end shearing machine, 3 sets bending rolls and gate or squaring motor-driven shears, schedule 6711; motor-driven bulldozer bending machine, schedule 6710; delivery Charleston, S. C.; for copies of schedules apply to navy pay office nearest navy-yard.

**Manufactured Products.**—A. J. Cogar, manufacturers' agents, 1 Broadway, New York.—Catalogues in triplicate, with corresponding price lists and discount sheets, on various manufactured products for Italian markets.

**Metal Ceiling.**—Rev. B. E. Stanfield, Fairmont, N. C.—Data and prices on metal ceiling for church.

**Metal Ceiling.**—Baptist Church, W. L. Windrow, Chrmn. of Bldg. Comm., Hondo, Tex.—Prices on steel ceiling.

**Metal Shingle.**—Baptist Church, W. L. Windrow, Chrmn. of Bldg. Comm., Hondo, Tex.—Prices on metal tile shingles.

**Metal Weather Strips.**—Wm. H. Bennett, 1405 Southwestern Life Bldg., Dallas, Tex.—Correspondence with manufacturers of metal weather strips.

**Metal-working Machinery.**—See Horseshoe Machinery.

**Metal Work.**—McGregor & Hingle, Bartlesville, Okla.—Prices on metal work for \$100,000 bank and office building.

**Mill Work.**—McGregor & Hingle, Bartlesville, Okla.—Prices on mill work for \$100,000 bank and office building.

**Oils (Lubricating).**—C. E. Gorton, Box 721, Stuttgart, Ark.—Correspondence with manufacturers of lubricating oils; view to representation.

**Paper Bags.**—E. H. Williams, 435 Carondelet St., New Orleans, La.—Printed paper bags. (See Coffee-parching Machinery, etc.)

**Paving.**—Board of Awards, Baltimore, Md.—Bids until May 6, care City Register, City Hall, to grade, curb and pave with cement concrete on Rutter, Jenkins and Mason alleys and Brevard St.; about 10,300 sq. yds.; contract No. 36; specifications, etc., on application, office of Paving Com., City Hall; R. Keith Compton, Chrmn. and Consultant Engr.

**Paving, etc.**—Board of Commrs., Street Improvement Dist. No. 10, B. H. Berger, Secy., Jonesboro, Ark.—Bids until June 1 to construct 10,000 sq. yds. brick paving and 400 lin. ft. concrete curbing; information on application.

**Paving.**—Board of Commrs., Birmingham, Ala.—Bids until May 5 to grade, macadamize, curb and construct gutters and sidewalk paving on 33d and 31st Aves.; about 4600 cu. yds. excavation; 2700 sq. yds. cement work; 1650 cu. yds. slag and 1650 cu. yds. chert; Julian Kendrick, City Engr.

**Pipe.**—Emory & Elsenbrey, 1116 Harrison Bldg., Philadelphia, Pa.—1500 ft. 4-in. pipe. (See Washing (Kaolin) Machinery.)

**FOR the benefit of business concerns, engineers, contractors, machinery manufacturers, dealers and others who find it profitable to follow up daily the industrial, commercial, railroad and financial development of the South and Southwest as published in this Construction Department,**

## We issue every Business Day in the Year THE DAILY BULLETIN

The construction news as published in the Daily Bulletin is invaluable to all business people who want to keep in daily touch with the organization of business enterprises of all kinds throughout the whole South. Unlimited possibilities for the creation of business, for securing contract work, for the sale of machinery and supplies of all kinds, for bond buyers and others, are to be found through a close following up of the news in the Daily Bulletin.

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**Engineering.**—Memphis Cotton Mfg. Co., John P. Bullington, Treas., Central Bank Bldg., Memphis, Tenn.—To engage engineer to advise regarding construction of plant and possibly construct and operate it; to bleach linters and manufacture cellulose.

**Feeds.**—C. E. Gorton, Box 721, Stuttgart, Ark.—Correspondence with view to handling feeds on commission.

**Fertilizers.**—C. E. Gorton, Box 721, Stuttgart, Ark.,—Correspondence with manufacturers of fertilizers; view to representation.

**Filter Presses.**—Emory & Elsenbrey, 1116 Harrison Bldg., Philadelphia, Pa.—Five second-hand filter presses. (See Washing (Kaolin) Machinery.)

**Fire Alarm System.**—Board of Trustees, J. P. Suberbille, Purchasing Agt., New Iberia, La.—Bids until May 5 to install fire alarm system, consisting of 20 repeating boxes magneto-electric gong for central fire station, switchboard, 2 circuit storage battery sets, automatic blowing machine, punching register, and wire, etc., to install same; prices for complete system in operation.

**Fog Signal Units.**—Office of Lighthouse Inspector, Baltimore, Md.—Bids until May 16 to furnish 2 fog signal units, consisting of oil engine and air compressor, together with accessory parts, for Thimble Shoal Light Station, Va. Information on application.

**Furniture.**—S. D. Morrow, Madison, Fla.

**Hides.**—Egidio Viglienzoni, Via G. Tommaso Invrea, 41-R, Genoa, Italy.—Correspondence with manufacturers of glazed kid box-calf skins and other qualities, colored and black; view to representation.

**Horseshoe Machinery.**—J. B. Frix, Eagle Springs, N. C.—Addresses of manufacturers of and dealers in machinery to make horseshoes.

**Hydraulic Apparatus.**—U. S. Reclamation Service, O. H. Ensign, Chief Electrical Engr., Los Angeles, Cal.—Bids until May 11 to furnish hydraulic apparatus for Okanagan Project, Wash.; for information address U. S. Reclamation Service, 605 Federal Bldg., Los Angeles.

**Ice Machinery.**—C. L. Herren, Hodgenville, Ky.—Prices on 10-ton ice plant.

**Lamphack Manufacturers.**—Elias Goldstein, 423 First National Bank Bldg., Shreveport, La.—Addresses of lamphack manufacturers.

**Lathes.**—Union Trust Co., Little Rock, Ark.—Prices on lathes for Little Rock Auto Garage repair shop.

**Laundry Machinery.**—Office of F. E. Skinner, Treas., Southern Branch N. H. D. V. S., National Soldiers' Home, Va.—Bids until May 15 to install mangle in main laundry. Information on application.

**Lighting Fixtures.**—S. D. Morrow, Madison, Fla.—Prices on lighting fixtures for church building at Sarasota, Fla.

**Lighting Fixtures.**—Treasury Dept., Office of Oscar Wenderoth, Supervising Archt., Washington, D. C.—Bids until May

**Paving, etc.**—City of Marietta, Okla.—Bids until May 4 to construct 20,000 sq. yds. vitrolithic street paving, including all grading, storm sewers and curbing; plans and specifications at office of Benham Engineering Co., Consult. Engr., Oklahoma City.

**Paving, etc.**—Arthur Howard, Secy., Mineral Wells, Tex.—Bids until May 6 to construct about 100,000 sq. yds. street pavement and 22,000 lin. ft. curb and gutter; bids received on the following pavement: Vertical fiber vitrified brick, creosoted pine blocks, one course concrete, asphaltic concrete, 2 coats asphalt macadam, 1 coat asphalt macadam, 2 coats asphalt macadam and water-bound macadam; specifications, etc., on application to A. O. Dreyer, City Engr.

**Paving and Sewers.**—Robert Bland, Mayor, Logan, W. Va.—Bids until May 9 to construct 16,000 sq. yds. brick paving with concrete base, 14,500 lin. ft. curb and gutter and 6250 lin. ft. sanitary storm sewers, 16 manholes and 30 catch-basins.

**Peanut Machinery.**—Raysor Peanut Co., Ocala, Fla.—Addresses of manufacturers of equipment for plant to hull, clean and roast peanuts.

**Pipe.**—K. B. Harvey, Fort Myers, Fla.—8-in. flange or slip joint galvanized spiral discharge pipe; second-hand.

**Piles and Lumber.**—U. S. Engr. Office, Ward H. Schulz, Maj., Engrs., 325 Customhouse, New Orleans, La.—Bids until May 15 to furnish and deliver piles and lumber on bank or wharves in Southwest Pass, Mississippi River. Information on application.

**Pipe-cutting and Threading Machine.**—Pittsburgh Can Co., 30 Church St., New York.—Second-hand 4-in. pipe cutting and threading machine, with lever grips. State name and type of machine.

**Pipe Organ.**—S. D. Morrow, Madison, Fla.—Prices on pipe organ for \$10,000 church building at Sarasota, Fla.

**Piping.**—Town Clerk, Berry, Ala.—Prices on water pipe.

**Piping.**—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids May 19 to furnish 5025 lbs. miscellaneous chemical lead pipe, schedule 6699; delivery Washington; for copies of schedules apply to navy pay office nearest navy-yard.

**Plumbing.**—McGregor & Hingle, Bartlesville, Okla.—Prices on plumbing for \$100,000 bank and office building.

**Power-house and Machinery.**—U. S. Engr. Office, J. P. Jersey, Maj., Engrs., Wheeling, W. Va.—Bids until May 13 to build fireproof power-house and to furnish and install machinery at each of dams Nos. 15 and 20, Ohio River; bids will be considered on one or both houses and chimneys, and on one or more of lots of machinery for one or both dams.

**Presses.**—Union Trust Co., Little Rock, Ark.—Prices on presses for Little Rock Auto Garage repair shop.

**Pulverizer.**—S. H. Baker, Box 884, Richmond, Va.—Pulverizer (Williams or Pennsylvania preferred) for grinding lime; to follow No. 5 or No. 7½ Gates crusher.

**Pump.**—Town Clerk, Berry, Ala.—Prices on pump.

**Pumps.**—Emory & Elsenbrey, 1116 Harrison Bldg., Philadelphia, Pa.—Pumps. (See Washing (Kaolin) Machinery.)

**Pumps, etc.**—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids May 19 to furnish four 3-in. right and left-hand motor-driven centrifugal pumps, schedule 6690; delivery Philadelphia, Pa.; for copies of schedules apply to navy pay office nearest navy-yard.

**Pumps.**—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids May 12 to furnish 18 vertical pumps, simplex and spare parts, schedule 6696; delivery Norfolk; for copies of schedules apply to navy pay office nearest navy-yard.

**Pumps.**—L. W. Pennington, Mayor, Eatonton, Ga.—Prices on electric pumps.

**Reclamation Work.**—Dept. of Interior, U. S. Reclamation Service, A. P. Davis, Chief Engr., Washington, D. C.—Bids until May 28 at office of U. S. Reclamation Service, Portland, Ore., to construct Three-Mile Falls Diversion Works, about 3 mi. north and west of Hermiston, Ore.; work consists of concrete diversion dam and concrete headworks, involving 2000 cu. yds. concrete and 3000 cu. yds. excavation and embankment.

**Reclamation Work.**—Dept. of Interior, U. S. Reclamation Service, A. P. Davis, Chief Engr., Washington, D. C.—Bids until May

27 at U. S. Reclamation Service, Malta, Mont., for earthwork and structures, Vandala Point, Vandala South Canal, involving about 68,000 cu. yds. excavation, 1900 cu. yds. concrete; placing 160,000 lbs. steel reinforcement, erecting 1550 lin. ft. metal flume and placing in wooden structures about 125,000 ft. B. M. lumber; work is situated on south side of Milk River, about 18 mi. west of Glasgow, Mont., and 1 mi. west of Vandala, and adjacent to main line of Great Northern Ry. Information on application.

**Refrigerating Machinery.**—C. M. McCord, Atlantic Beach, Fla.—Prices on 10-ton refrigeration unit. (See Engines, Condensers, etc.)

**Road Construction, etc.**—Board of Awards, Jas. H. Preston, Prest., Baltimore, Md.—Bids until May 6 to lay cement or gravel walks and roadways at Bayview Asylum; drawings and specifications at office C. E. Stubbs, Inspector of Bldgs.

**Road Construction.**—Blount County Comr., Oneonta, Ala.—Bids until May 15 to grade and drain 3 mi. road from Rosa toward Cleveland, Ala.; W. S. Keller, State Highway Engr., Montgomery, Ala.

**Road Construction.**—Road Dist. No. 1 of Phillips County, E. M. Allen, Chmn., Helena, Ark.—Bids until May 12 at office of Kelly & Allen, Solomon Bldg., Helena, to construct 6 mi. concrete road with macadam passage; Hugh R. Carter, State Highway Engr., Little Rock, Ark.

**Road Construction and Material.**—Harris County, H. L. Washburn, Auditor, Houston, Tex.—Bids until May 11 to pave Washington Rd. between Hockley and Waller, distance 3½ mi.; also for 7000 cu. yds. of gravel, f. o. b. cars Hockley or Waller, and for hauling and placing same.

**Road Construction.**—Cumberland County Comr., Cumberland, Va.—Bids until May 5 to construct 1 mi. of soil and gravel road between Cartersville and Muddy Creek Mills; plans and specifications in offices of County Clerk and of G. P. Coleman, State Highway Commr.

**Road Construction, etc.**—Bexar County, V. H. Howard, County Auditor, San Antonio, Tex.—Bids until May 16 to construct following roads according to plans and specifications in office of County Highway Engr.: Corpus Christi, 7½ mi.; Pleasanton, 3½ mi.; Applewhite, 4½ mi.; Somerset, 2½ mi.; Quintana, 4 mi.; Pearsall, 4 mi.; Caserville, 3½ mi.; Protarne, 7½ mi.; Culebra, 6½ mi.; Blanco, 8 mi.; Nacogdoches, 6½ mi.; Sequin, 1 mi.; St. Hedwig, 4 mi.; Gonzales, 4½ mi.; Sulphur Springs, 5 mi.; also 2700 cu. yds. concrete culverts.

**Road Construction.**—Lawrence County Comr., Onconta, Ala.—Bids until May 15 to construct macadam road extending from Flat Creek toward Morgan county line; expenditure \$652.26; W. S. Keller, State Highway Engr., Montgomery, Ala.

**Road Construction.**—Tarrant County, J. A. Mulholland, Auditor, Fort Worth, Tex.—Bids until Apr. 27 to construct section of 2 mi. of Fort Worth and Haslet Rd. in precinct 4.

**Road Machinery.**—Jones County Supervisors, Laurel, Miss.—Bids filed with W. H. Burklin, Chancery Clerk, until May 4, for road traction engine (oil or gasoline); two road graders; two Wheeler scrapers and other implements to complete public road-building outfit.

**Roofing.**—Harris County, H. L. Washburn, Auditor, Houston, Tex.—Bids until May 11 to reroof county courthouse; plans and specifications at office of A. C. Finn, Archt., 206 Pearce Theater Bldg., Houston.

**Roofing.**—S. D. Morrow, Madison, Fla.—Prices on roofing for church building at Sarasota, Fla.

**Saw (Band).**—Wilmington Iron Works, foot of Orange St., Wilmington, N. C.—New or second-hand band saw for shipyard.

**Sawing Machinery.**—W. R. Humphries, Milledgeville, Ga.—Gasoline engine and saw to cut stovewood.

**Sewers.**—See Paving and Sewers.

**School Furniture, etc.**—A. B. Rhett, Supt. of Public Schools, Charleston, S. C.—Bids until June 15 for furniture and fixtures for Courtenay School (to be remodeled); details and specifications on application.

**Seating.**—S. D. Morrow, Madison, Fla.—Prices on seating for church building at Sarasota, Fla.

**Seating.**—Rev. B. E. Stanfield, Fairmont, N. C.—Data and prices on church pews.

**Seating.**—Presbyterian Church, Rev. J. H. Kirkpatrick, pastor, Rogers, Ark.—Prices on seating.

**Sewers.**—Board of Awards, Jas. H. Preston, Prest., Baltimore, Md.—Bids until May 6 to construct sanitary lateral sewers under contract No. 134; 25,350 lin. ft. vitrified pipe sewer, 8 to 10 in.; 17,700 lin. ft. vitrified pipe house connections; plans and specifications on application to Sewerage Com., Harry W. Roberts, Secy., 904 American Bldg.

**Sewers.**—See Water-works and Sewers, Tenn., Copperhill.

**Sewers.**—City of Richmond, Va.—Bids until Apr. 30 to construct sewer in Hull St. between 7th and 12th Sts.; Chas. E. Bolling, City Engr.

**Sewers.**—D. G. Leahy, Recorder, Knoxville, Tenn.—Bids until May 1 to construct about 1418 lin. ft. 10-in. lateral sewer from Third Creek main sanitary sewer eastwardly to 16th St. and Forest Ave.; vitrified pipe; plans and specifications at office J. B. McCalla, City Engr., City Hall.

**Sewer Construction.**—E. B. Bonney, City Secy., Houston, Tex.—Bids until May 4 to construct sanitary sewers on Robin St. from Helner to Smith Sts., and Gano St. from Loraine to Waverly Sts.; plans and specifications at office E. E. Sands, City Engr.

**Sawing Machine, Mortiser, etc.**—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids May 19 to furnish band sawing machine, vertical mortiser, revolving oilstone and grinder, all motor-driven, schedule 6691; miscellaneous lot semi-finished hexagon wrought-iron nuts, cold punched, chamfered and trimmed, schedules 6700 and 6701; delivery Brooklyn, N. Y.; for copies of schedules apply to navy pay office nearest navy-yard.

**Sewerage and Water-works Construction.**—Webb Watkins, Mayor, Dexter, Mo.—Separate bids until May 18 for sewerage system and water-works; sewerage, about 7½ mi. 6 to 12-in. pipe, 62 manholes, 28 flush tanks, Imhoff tank and settling tank; water-works, about 6 mi. 4 to 8-in. cast-iron water pipe, 34 hydrants, 24 valves with boxes, 70,000-gal. tower tank and pumping station complete; separate bids from contractors on deep well; Intely-noted plans and specifications at office John I. Moore, City Clerk, and obtainable from Engr. on deposit of \$25 for sewers and \$15 for water-works.

**Sewer Construction.**—Sewerage Com., Lancaster, S. C., Leroy Springs, Chrmn.—Bids until May 27 to construct sanitary sewer system; about 11 mi. pipe sewers, 8 to 15-in. diam.; plans and specifications at office of City Clerk, and at Savannah office of Engr., H. S. Jaudon Engineering Co., Box 576, Atlanta, Ga., and Box 582, Savannah, Ga.; John Crawford, Clerk.

**Skidder, etc.**—Stimson Veneer & Lumber Co., J. V. Stimson, Prest., Memphis, Tenn.—Prices on skidder and log loader.

**Spindle (Vehicle) Manufacturers.**—T. L. Martin, Wrightsville, Ga.—Addresses of manufacturers view to having patented vehicle spindle manufactured, contract or royalty.

**Sprinkler System.**—Willson-Chase Co., St. Petersburg, Fla.—Prices on sprinkler system for \$20,000 to \$25,000 store and office building.

**Shoe Machinery.**—Stybel Bros., 13 Nowolipie St., Warsaw, Russia.—Correspondence (view to agency) with American manufacturers of shoe machinery. (Address lately incorrectly noted.)

**Stack.**—Anthony S. Hill, Randolph Bldg., Memphis, Tenn.—Second-hand stack; first-class condition; 40 or 42 in. diam. by 80 to 100 ft. high.

**Steel.**—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids May 19 to furnish 3525 lbs. miscellaneous black sheet steel and 21,000 lbs. miscellaneous galvanized sheet steel, schedule 6699; delivery Washington; for copies of schedules apply to navy pay office nearest navy-yard.

**Steel Rolling Doors.**—Panama Canal, F. C. Boggs, Gen. Purchasing Officer, Washington, D. C.—Bids until May 16 for valve pit and gutter covers, gratings and seats; grille frames, dumb waiters, ladders, sponges, rubbing felt, calcining brushes, paint brushes, paints, white zinc, white lead, lampblack, varnish, linseed oil, grain alcohol, putty, electric cable, insulating tape, circular loom, marine fixtures and cross-arm pins; blanks and general information relating to this circular (No. 848) may be obtained from this office or offices of assistant purchasing agents, 24 State St., New York; 614 Whitney-Central Bldg., New Orleans, and 1086 North Point St., San Francisco; also from U. S. Engr. offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash.

**Vehicles.**—C. E. Gorton, Box 721, Stuttgart, Ark.—Correspondence with manufacturers of vehicles; view to representation.

**Volcanic Ash.**—Charles Earl Currie & Co., 206 Coleman Bldg., Louisville, Ky.—Addresses of producers or dealers in volcanic ash, crude or manufactured.

**Washing (Kaolin) Machinery.**—Emory & Elsenbrey, 1116 Harrison Bldg., Philadelphia, Pa.—Five second-hand filter presses and pumps for kaolin washing; also 150 ft. 4-in. pipe.

**Water-works.**—City of Henryetta, Okla.—Bids until May 5 to install machinery necessary and construct steel and concrete intake tower, brick power-house, extend water main extensions, install hydrants and valves, 750 G. P. M. compound duplex steam pump, 100 H. P. boiler, feed water heater, boiler feed pump and piping; plans and specifications at office of Benham Engineering Co., Consult. Engr., Oklahoma City.

**Water Wheel.**—M. E. Worrell, Murfreesboro, N. C.—Data and prices on water wheel (Burnham preferred).

ber of Commerce, Quincy, Ill.; Commercial Club, Tacoma, Wash., and Chamber of Commerce, Portland, Ore.

**Steel Trusses.**—Upper Cumberland Loose Leaf Tobacco Co., L. M. Ross, Secy.-Treas., Gallatin, Tenn.—Prices on steel trusses for two tobacco warehouses

**Steel Tower.**—Navy Dept., Bureau of Yards and Docks, H. R. Stanford, Chief of Bureau, Washington, D. C.—Bids until May 23 to construct steel tower and concrete foundation at radio station, Beaufort, N. C., Plans and specifications on application.

**Stone.**—U. S. Engr. Office, Edw. H. Schulz, Maj., Engrs., 325 Custom-house, New Orleans, La.—Bids until May 29 to furnish and deliver about 6000 cu. yds. stone at South Pass and Southwest Pass, Mississippi River. Information on application.

**Stone and Spalls.**—U. S. Engr. Office, C. McD. Townsend, Col., Engrs., St. Louis, Mo.—Bids until May 6 to furnish stone and spalls. Information on application.

**Tank.**—Town Clerk, Berry, Ala.—Prices on 10,000-gal. storage tank.

**Telephone Equipment.**—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids May 26 to furnish 100 telephone head sets, schedule 6709; delivery Washington; for copies of schedules apply to navy pay office nearest navy-yard.

**Traction Engine.**—Carpenter, Taylor & Co., Rutherfordton, N. C.—Second-hand traction engine or tractor; about 16 H. P.

**Traction Engine.**—Jones County Supervisors, Laurel, Miss.—Bids until May 4 for oil or gasoline road traction engine. (See Road Machinery.)

**Trailers.**—Carpenter, Taylor & Co., Rutherfordton, N. C.—Three trailers for hauling lumber.

**Underground Conduits.**—See Crane, etc.

**Vacuum-cleaning Plant.**—Presbyterian Church, Rev. J. H. Kirkpatrick, pastor, Rogers, Ark.—Prices on vacuum cleaner.

**Vacuum Cleaners.**—R. D. Cole Mfg. Co., Newnan, Ga.—Prices on stationary vacuum cleaners for 10-room residence.

**Valves (Balanced).**—Dept. of the Interior, D. C. Morris, Acting Director, U. S. Reclamation Service, Washington, D. C.—Bids until May 7 at office of U. S. Reclamation Service, 609 Federal Bldg., Los Angeles, Cal., to furnish 20 balanced valves for Arrow Rock Dam, Boise Project, Idaho. Information on application.

**Valve Pit Covers, etc.**—Panama Canal, F. C. Boggs, Gen. Purchasing Officer, Washington, D. C.—Bids until May 16 for valve pit and gutter covers, gratings and seats; grille frames, dumb waiters, ladders, sponges, rubbing felt, calcining brushes, paint brushes, paints, white zinc, white lead, lampblack, varnish, linseed oil, grain alcohol, putty, electric cable, insulating tape, circular loom, marine fixtures and cross-arm pins; blanks and general information relating to this circular (No. 848) may be obtained from this office or offices of assistant purchasing agents, 24 State St., New York; 614 Whitney-Central Bldg., New Orleans, and 1086 North Point St., San Francisco; also from U. S. Engr. offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash.

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**Water Wheel.**—M. E. Worrell, Murfreesboro, N. C.—Data and prices on water wheel (Burnham preferred).

**Water Wheels.**—L. W. Pennington, Mayor, Eatonton, Ga.—Prices on turbine wheels.

**Water-works Material.**—Board of Trustees, J. P. Suberbelle, Purchasing Agt., New Iberia, La.—Bids until May 5 to furnish following: 500 tons class C 6-in. bell and spigot, cast-iron pipe; 45 fire hydrants, 2½ in. hose connections, 3 to 4 ft. depth from curb line, with 4-in. inlet; 20 6-in. gate valves, bell ends, 300-lb. hydraulic measure; 10 tons 4-in. class C bell and spigot, cast-iron pipe; 25 6x6x6 T's, bell ends, class D; 50 6x6x4 T's, bell ends, class D; 6 6x6 L's, bell ends, class D; 1000 lbs. tarred rope oakum; 18,000 lbs. pig lead; 20 street boxes, 3-ft. expansions for 6-in. valves; all pipe and fittings in conformity with standard specifications adopted by American Water-works Assn. Prices f. o. b. New Iberia.

**Water-works.**—Webb Watkins, Mayor, Dexter, Mo.—Bids until May 18 on water-works, including 6 mil. 4 to 8-in. cast-iron water pipe, 34 hydrants, 24 valves with boxes, 70,000-gal. tower tank and pumping station. (See Sewerage and Water-works Construction.)

**Water-works and Sewers.**—Boon Crawford, Mayor, and Aldermen, Copperhill, Tenn.—Bids until May 5 to construct water-works and sewers; plans and specifications in office of Clerk.

**Well Drilling.**—J. F. Baldwin, City Clerk, Edmond, Okla.—Bids until May 7 to drill well according to plans and specifications in office of Clerk.

**Well Drilling.**—See Sewerage and Water-works Construction, Dexter, Mo.

**Well-drilling Equipment.**—Federal Reserve Oil Co. (E. R. Black and others), Okmulgee, Okla.—Bids on drilling machinery and rig timbers.

**Willows.**—U. S. Engr. Office, Edw. H. Schulz, Maj., Engrs., 325 Custom-house, New Orleans, La.—Bids until May 20 to furnish about 20,000 cords of willows at South and Southwest Passes, Mississippi River. Information on application.

**Window Guards.**—Wm. H. Bennett, 1405 Southwestern Life Bldg. Dallas, Tex.—Correspondence with manufacturers of window guards for church windows.

**Windows.**—S. D. Morrow, Madison, Fla.—Prices on windows for \$10,000 church building at Sarasota, Fla.

**Woodworking (Handle) Machinery.**—R. F. Cook, 504 Mendehall St., Greensboro, N. C.—Prices on machinery to manufacture pick and hammer handles, etc.

**Woodworking Machinery.**—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowle, Paymaster-Gen., Washington, D. C.—Bids May 26 to furnish motor-driven universal woodworker, schedule 6686; blank proposals furnished on application to navy pay office, Las Animas, Colo.; delivery Rixey, Colo.

## FINANCIAL NEWS

The MANUFACTURERS RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

### American Bank Reporter for March

The American Bank Reporter has issued its blue book for March, 1914, revisions and corrections being made up to that month. This is the seventy-eighth year of publication for this financial authority, and the number is an improvement upon its immediate predecessors, as they were, in turn, better than others which had appeared before. All the popular and reliable features are retained, and everything else is brought up to date. There is a thumb index for quick convenience. The binding is substantial blue cloth, with silver lettering. The book is published by the Steurer Publishing Co., 149th street and Bergen avenue and 5 to 7 Beekman street, New York.

### Two Norfolk Banks Unite.

The consolidation of the Seaboard National Bank and the Bank of Norfolk, both

at Norfolk, Va., has been completed in accordance with the plan previously announced, and the new concern now occupies the building of the Seaboard National Bank (the name of which was adopted for the newly-formed institution) on Main street near Granby street. The total resources of the new Seaboard National are more than \$2,000,000. The officials are Wm. T. Old, president; H. T. Campbell, vice-president; Abner S. Pope, cashier; G. Serpell, chairman of the board; S. Heth Tyler and James E. Heath, attorneys; W. C. Jenkins, W. P. Whaley and W. H. F. Enos, assistant cashiers. O. J. Egerton and O. B. McLean will have charge of the insurance department of the bank, Mr. Egerton being president of that branch of the business.

### FINANCIAL CORPORATIONS

**Ala., Centerville.**—A new bank capitalized at \$40,000 is organized and will begin business June 1; J. W. Hunnicutt, Prest.; Walton C. Fuller, V.-P.; Letcher Melton, Cash.; directors, W. H. Cooper, S. C. McGaugh, J. Fritz Thompson, J. W. Hunnicutt and M. G. Crews.

**Ala., Montgomery.**—Alabama Audit Co. has filed articles of incorporation; capital \$50,000; C. G. Trost, Prest.; J. J. Campbell, V.-P.; R. E. Troy, Secy. and Treas.

**Ala., Waterloo.**—A new bank capitalized at \$15,000 is being organized. Alex. E. Walker, Supt. State Banking Dept., may be able to give information.

**Ala., Woodlawn (P. O. Birmingham).**—Woodlawn Savings Bank is organized with \$25,000 capital and expects to begin business about May 15. Charles E. Burrus is Prest.; Dr. A. W. Bell, 1st V.-P.; J. W. McKinstry, Cash.; D. V. Edmundson, Asst. Cash.

**Fla., Watertown.**—A new bank is reported organized with \$15,000 capital. Address The Mayor.

**Ga., Atlanta.**—The Co-operative Investment Assn., capital \$50,000, is being organized by J. A. Patterson and C. L. Boone.

**Ga., Macon.**—People's Banking & Trust Co. will begin business Apr. 30 at 352 2d St.; capital \$100,000; Lee M. Happ, Prest.; Price E. Hertz, 1st V.-P.; Louis A. Sharpe, 2d V.-P.; Chas. E. Newton, 3d V.-P.; William C. Miller, Secy. and Treas.

**Ga., Manchester.**—State Bank has been organized with \$25,000 capital. A. N. Davis, Prest.; J. L. Amazon, Cash.

**Ky., Louisville.**—Real Estate Loan and Building Assn. Incptd.; capital \$500,000. Will begin business Apr. 25. James S. Ray, Prest.; Caldwell Norton, V.-P.; Geo. W. Grant, Treas.; S. C. Dalrymple, Secy.; Burrell H. Farnsley, Atty.

**Ky., Stone.**—First National Bank has made application to organize; capital \$50,000. Organizers: R. H. Heyson, W. Proctor, W. A. Lester, H. C. Weller and G. C. Stupalsky.

**La., Minden.**—First National Bank of Minden chartered; capital \$50,000; L. P. Wren, Prest.; A. H. Gray and P. L. Nashburn, V.-Ps.; A. F. Dupuy, Cash.; directors, L. P. Wren, A. H. Gray, L. Longino, S. F. Martin, A. Glass, Mat Lawe, Robt. Roberts, C. L. Cabe and A. F. Dupuy. Business is to begin about June 1.

**Miss. Indianola.**—First National Bank has made application for authority to organize with capital of from \$60,000 to \$100,000, with probably 10 per cent. surp's. Organization will not be completed before June or July, with view of beginning business in Oct. Officers and directors not yet elected. D. M. Quinn is interested.

**Miss., Jackson.**—Jackson National Bank is chartered; capital \$100,000; Oscar Newton, Prest.; M. S. Craft, Cash.

**Mo., Hayti.**—Farmers' Bank has organized with T. P. Russell, Prest.; G. R. Henderson, V.-P.; Arch. S. Russell, Cash.

**Mo., Kansas City.**—National Reserve Insurance Co. of Kansas City is chartered; capital \$50,000; incorporators, James B. Redmon, George W. Connor and Wm. S. Mills.

**Mo., Senath.**—Planters' Bank is being organized by John M. Karbes and O. H. Storey.

**N. C., Charlotte.**—A new bank with authorized capital of \$50,000 is reported being organized by J. R. Bartol of Richmond, Va.

**Oklahoma, Durant.**—State National Bank of Durant is approved; capital \$50,000; organizers, Green Thompson, A. U. Thomas, E. C. Million, G. H. Harris and S. G. Bryan. This succeeds the Guaranteed State Bank.

**Oklahoma, Hammon.**—Farmers' National Bank of Hammon is to be chartered; capital \$25,000; surplus \$2500. Incorporators: J. T. Beall, S. J. Tippens, Lee Dorroh, E. A. Hammon and W. G. Collins, Hammon, Okla.; J. R. Fimple, E. H. Cates and G. E. Harris, Moorewood, Okla.

**Oklahoma, Hulbert.**—First National Bank is chartered; capital \$25,000; W. C. Jackson, Prest.; J. David Nowlin, Cash. This succeeds the First State Bank of Hulbert.

**Oklahoma, Savanna.**—First State Bank chartered; capital \$12,000; Incorporators, E. F. Crosby and A. L. Zeitzer of Savanna and John J. Fry of South Shore.

**Oklahoma, Oklahoma City.**—Cooke Building & Investment Co., Incptd.; capital \$300,000. Edward H. Cooke, Prest. and Treas.; Geo. L. Cooke, V.-P. and Secy.; Edna Earle Cooke. This is principally a holding real estate company.

**S. C., Conway.**—People's National Bank is approved; capital \$25,000; organizers, J. A. McDermott, Prest.; G. B. Jenkins, V.-P.; D. A. Spivey, Cash.; John C. Spivey, W. B. King and A. T. Collins. Business is to begin about May 15.

**S. C., Conway.**—People's Building and Loan Association is chartered, capital \$50,000 to \$100,000. D. A. Spivey, Prest.; A. W. Barrett, V.-P.; A. H. Long, Secy. and Treas.

**S. C., Laurens.**—Enterprise Bank has made application to convert into the Enterprise National Bank of Laurens; capital \$100,000.

**S. C., Springfield.**—People's Bank of Springfield has made application to convert into the First National Bank; capital \$25,000.

**Tenn., Memphis.**—Mercantile National Bank has made application to organize; capital \$600,000. Organizers: E. B. Lemaster, 109 Madison Ave.; G. D. Smith, F. G. Jones, R. A. Speed and L. E. Wright. This succeeds the Mercantile Bank of Memphis.

**Tenn., Russellville.**—First National Bank of Russellville, chartered with \$25,000 capital, began business Apr. 11. C. J. Fuller, Prest.; Jo. H. Dean, Cash.; J. M. Tranham, Asst. Cash. This is a conversion of the Citizens' Bank of Russellville.

**Tex., Bonham.**—Bonham Building and Loan Association is authorized to do business; capital \$100,000.

**Tex., El Paso.**—First Safety Deposit Co. is chartered; capital \$25,000; incorporators, Jas. G. McNary, John M. Wyatt and Edgar W. Kayser.

**Tex., Hamiltonburg.**—Live Oak County State Bank is organized with \$25,000 capital.

**Tex., Paris.**—Scott Title Co. is chartered; capital \$10,000; incorporators, T. M. Scott, Charles Schaeffer and A. W. McGuire.

**Va., Berkley.**—Industrial Savings & Loan Co., Inc., authorized capital \$500,000, has elected following officers: Carl D. Coloma, Prest.; Dr. J. H. Costenbader, V.-P. and Treas.; F. S. Sager and R. A. Woods, V.-Ps.; Jos. A. Markel, Secy.

**Va., Newmarket.**—Citizens' National Bank of Newmarket is chartered; capital \$25,000. Organizers: C. N. Hoover, E. D. Newman, M. B. Wunder, W. W. Williamson and E. W. Newman. This succeeds the Citizens' Bank of Newmarket.

**Va., Newmarket.**—First National Bank of Newmarket chartered; capital \$25,000. Organizers: W. P. Crickenberger, R. D. Grabill, J. D. Manor, H. M. Hinkel and C. H. Moore.

**Va., Norfolk.**—Tidewater Insurance Co. is chartered; capital \$5000 to \$15,000. O. J. Egerton, Prest.; H. O. McLean, Secy.

**Va., Roanoke.**—Security Investment Co., Incptd.; capital \$1000 to \$3000; W. S. Engleby, Prest.; A. L. Wolfe, Jr., Secy.

**Va., Roanoke.**—The conversion of the Bank of Commerce into the American National Bank is approved; capital \$100,000.

### NEW SECURITIES

**Ala., Gadsden.**—June 1 an election is to be held to vote on \$100,000 street paving bonds. Address Mayor Holcombe.

**Ala., Gadsden.**—\$30,000 5 per cent. 30-year sewer bonds are voted. Address Mayor Holcombe.

**Ala., Hartsboro.**—The \$24,000 6 per cent. water and light bonds recently reported sold were purchased by J. B. McCrary Co., Atlanta; denomination \$500; dated Jan. 2, 1914; maturity Jan. 2, 1924.

**Ala., Montevallo.**—Town is offering for sale \$6000 5 per cent. 20-year school bonds. J. M. Reynolds is Mayor.

**Ala., Apopka.**—It is proposed to hold an election to vote on bonds for electric light, city hall and shade trees. Address Town Comr.

**Ala., Clermont.**—Election is to be held to

vote on \$10,000 high-school bonds. Address the School Board.

**Fla., De Land.**—Election is to be held June 23 to vote on \$25,000 municipal refunding bonds. Address The Mayor.

**Fla., Frostproof.**—Election to vote on \$15,000 6 per cent. 20-year bonds, Special Tax School Dist. No. 22, Polk county, will be held May 11. If bonds are voted, County Board of Public Instruction will advertise for bids. Address C. A. Barker, City Secy., Board of Public Instruction Polk County, Bartow, Fla.

**Fla., Manatee.**—May 26 an election is to be held to vote on \$100,000 municipal improvement bonds as follows: Water-works, \$35,000; sanitary and storm sewers, \$25,000; street paving, \$40,000. Chas. J. Majority, Mayor.

**Ga., Augusta.**—Election to vote on \$750,000 levee bonds is to be held June 1. Linwood C. Hayne is Mayor.

**Ga., Canton.**—Election is to be held May 23 to vote on \$35,000 5 per cent. municipal improvement bonds; denomination \$1000. Howell Brooke is Mayor.

**Ga., Columbus.**—\$60,000 4½ per cent. hospital bonds have been purchased by New York Life Insurance Co., New York, at \$103.537 and accrued interest. It is probable that about June 15 city will offer \$450,000 water-works bonds. Address Mayor Cook.

**Ga., Mansfield.**—\$5000 5 per cent. 30-year electric-light bonds are voted. Address The Mayor.

**Ga., Royston.**—J. B. McCrary Co., Atlanta, have been awarded \$10,000 5 per cent. 25-year school bonds. J. C. Doyle is City Treas.

**Ga., Summerville.**—Chattooga County Board of Roads and Revenues are considering the question of issuing \$50,000 of bonds for improving county's highways.

**Ky., Franklin.**—Election is to be held May 2 to vote on \$100,000 road bonds. Address The Mayor.

**Ky., Somerset.**—\$300,000 of Pulaski county road bonds were defeated at election Apr. 24. Another election is called for June 26. C. M. Langdon is County Clerk.

**Ky., Trenton.**—Election is about to be held to vote on \$12,000 school-building bonds. Address The Mayor.

**La., Covington.**—June 3 an election is to be held in St. Tammany parish to vote on \$180,000 road bonds. If election carries, St. Tammany Banking Co. and Savings Bank of Covington will take the bonds. Address Police Jury.

**La., Donaldsonville.**—Police Jury of Ascension Parish has authorized the issuing of \$35,000 5 per cent. road-improvement bonds voted Mch. 25, 1913; denomination \$500; dated July 15, 1914; maturity July 15, 1915, to July 15, 1934, inclusive. C. C. Weber is Clerk.

**La., Ponchatoula.**—All bids received Apr. 13 for the \$75,000 5 per cent. bonds Seventh Ward Road Dist. No. 2 were rejected; H. P. Mitchell is Prest. Police Jury.

**La., Vivian (P. O. Shreveport).**—Bids will be received by C. E. Byrd, Supt. Board of Parish School Directors, until May 10 for \$70,000 5 per cent. site purchase and building bonds Vivian School Dist. No. 3, Caddo parish; denomination \$1000; dated June 1, 1914; maturity 1915 to 1929, inclusive.

**Md., Baltimore.**—Bids will be received at the Mayor's office until noon May 4 for \$500,000 conduit loan, redeemable Aug. 1, 1962; \$1,500,000 water loan, redeemable Dec. 1, 1958; \$1,000,000 paving loan, redeemable Aug. 1, 1951; \$500,000 annex improvement loan, redeemable Aug. 1, 1951; \$3,500,000 new sewerage improvement loan, redeemable Aug. 1, 1961; interest 4 per cent.; Richard Givins, City Register.

**Md., Chestertown.**—\$25,000 street and sewer bonds are voted. Address The Mayor.

**Md., Elkton.**—Bids will be received until noon May 5 for \$25,000 5 per cent. 30-year Cecil county road bonds; denomination \$500; dated July 1, 1908; redeemable 1938. J. Frank Blake is Prest. and Walter C. Martindell, Clerk, County Comr.

**Md., Laurel.**—\$52,000 sewer, \$23,000 water system and filtration plant extension and \$5000 funding bonds are voted; Geo. W. Waters, Jr., is Mayor.

**Md., Mount Ranier.**—\$125,000 water, sewerage and electric-light bonds are voted. Address The Mayor.

**Md., Rising Sun.**—\$25,000 of town bonds are voted. Chas. S. Pyle, Prest. Comr. of Rising Sun.

**Md., Rockville.**—\$50,000 sewer and water bonds are voted. Address The Mayor.

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## MANUFACTURERS RECORD.

Md., Towson.—Election is to be held May 19 to vote on \$500,000 Baltimore county school bonds. Address County Comms., Chas. J. Fox, Ch. Clerk and Auditor.

Miss., Corinth.—\$14,000 6 per cent. 20-year Seven-Mile Drainage bonds will be offered on May 25. Address Alcorn County Drainage Comms., W. J. Lamb, Atty. Further particulars will be found in the advertising columns.

Miss., Houston.—\$100,000 6 per cent. 25-year Chickasaw county road bonds were awarded to the First National Bank of Okolona.

Miss., Jackson.—\$125,000 25-year Dist. No. 2, Hinds county, road bonds are to be offered; interest not exceeding 5½ per cent. Address Board of Supvrs.

Miss., Meridian.—\$60,000 school improvement bonds are voted. J. W. Parker is Mayor.

Miss., Newton.—Good-roads bonds bearing 6 per cent. are to be issued. J. R. Byrd is Chrmn. Board of Supervisors.

Miss., Port Gibson.—Bids will be received until 2 P. M. May 4 for \$40,000 (not \$50,000 as recently stated) 5 per cent. 20-year bonds for refunding loan-warrant indebtedness; denomination \$1000; dated May 4, 1914. Address B. H. Morehead, Port Gibson.

Mo., Butler.—Steps are being taken to call an election to vote on \$75,000 water-works bonds. Address The Mayor.

Mo., St. Louis.—Election is to be held May 5 to vote on \$40,000 high-school building bonds, Wellstone School Dist. Address School Comms.

Miss., Lexington.—The \$75,000 5 per cent. 25-year Holmes county funding bonds recently reported sold were purchased by Merchants & Farmers' Bank & Trust Co., Lexington, at par and accrued interest; denomination \$500; dated Apr. 7, 1914. Address Board of Supervisors, P. H. Murphy, Clerk.

Miss., Clarksdale.—Board of Supervisors Coahoma County is considering question of issuing \$100,000 road bonds.

Miss., Clarksdale.—Bids received Apr. 16 for \$60,000 paving bonds were rejected. Bonds are now being offered at private sale. M. W. Purcell is city clerk.

Miss., Indiana.—Bids will be received until 3 P. M. May 14 by Board of Mayor and Aldermen for \$3000 6 per cent. 5-30 year improvement bonds. W. D. Watts is Mayor and M. A. Moore Clerk.

Miss., Houston.—\$100,000 6 per cent. 25-year bonds First Supvrs. Dist., Chickasaw County, have been purchased by First National Bank, Oklahoma.

Mo., Belleville.—\$50,000 park bonds are voted. Address The Mayor.

Mo., Cameron.—J. Harry Hulizer, Clerk Board of Education, will receive bids until May 1 for \$55,000 school district building bonds.

Mo., Carthage.—Bids will be received until May 2 by L. Hukill, Secy. Board of Education, for \$10,000 school district building bonds.

Mo., Hermann.—\$17,000 of 5 per cent. 20-year bonds (balance of an issue of \$35,000) have been purchased by Wm. R. Compton & Co., St. Louis.

Mo., Jameson.—Fidelity Trust Co., Kansas City, purchased on Apr. 11 at \$20,085 the \$20,000 5 per cent. 20-year school district building bonds voted Mch. 19; dated May 1, 1914; maturity May 1, 1934; denomination \$500. Address Finance Committee.

Mo., Webster Groves.—\$50,000 4½ per cent. 10-20 year school district bonds were awarded to A. G. Edwards & Sons, St. Louis, at a premium of \$267.50.

N. C., Chapel Hill.—Election is about to be held to vote on \$50,000 railroad-aid bonds. Address The Mayor.

N. C., Durham.—\$500,000 5-30-year water-works bonds are voted; denomination \$25 to \$1000, as Board of Aldermen may order; interest not to exceed 5 per cent. Bonds will probably not be issued under two years. W. J. Brogden is Mayor; Geo. W. Woodward, City Clerk.

N. C., Kinston.—Steps are being taken to call an election to vote on \$100,000 internal improvement bonds. Address The Mayor.

N. C., Kinston.—Election is soon to be held in Lenoir county to vote on good roads bonds. Address County Comms.

N. C., Lincolnton.—Bids will be received until noon May 11 for \$25,000 6 per cent. drainage work bonds. Address Board of Drainage Comms. for Indian Creek Drainage Dist., Lincoln and Gaston counties, L. B. Wetmore, Atty.

N. C., Raleigh.—Bids will be received until noon May 1 for \$86,000 paving, \$8000 sewer

and \$6000 fire station 5 per cent. 30-year bonds voted Apr. 15; denomination \$1000; dated June 10, 1914; maturity June 1, 1944. Address Jas. I. Johnson, Mayor.

S. C., Williston.—Bids will be received until noon Apr. 25 for \$8000 6 per cent. 10-30 year electric light improvement bonds; dated Jan. 1, 1914. L. S. Mellichamp is Secy. Improvement Com.

Okla., Boswell.—\$25,000 water-works bonds are voted. Address The Mayor.

Okla., Hugo.—Wilson township, embracing Fort Towson, Choctaw county, will hold an election to vote on \$30,000 road bonds. Address County Comms.

S. C., Allendale.—Voted: \$50,000 Allendale township road bonds. Address Town Commissioners.

S. C., Allendale.—\$65,000 water, light and sewer bonds are voted. Address The Mayor.

S. C., Cheraw.—\$40,000 road bonds are being offered. Address Loran A. Kerr, Secy.

S. C., Laurens.—Sullivan Power Co. has made \$50,000 6 per cent. 1-20 year first mortgage bonds on its hydro-electric plant. Address Home Trust Co. Further particulars will be found in the advertising column.

Tenn., Camden.—Bids will be received until 1 P. M. May 6 by A. J. Utley, Town Recorder, for \$20,000 5 per cent. 20-year school bonds.

Tenn., Chattanooga.—\$50,000 5 per cent. 30-year Hamilton county bonds are sold at 106. The sale was negotiated by J. W. Jakob of the stocks and bond department, First Savings Bank & Trust Co., Nashville.

Tenn., Dresden.—\$27,000 6 per cent. 20-year water and light bonds have been purchased by Duke M. Farson, Chicago, at par.

Tenn., Greeneville.—\$25,000 5 per cent. 5-25 year Greene county school bonds are reported sold to local party. Address County Comms.

Tenn., Memphis.—City Commission has passed on first reading an ordinance authorizing the issuing of \$1,000,000 5 per cent. levee improvement bonds. Dated July 1, 1914; maturity 1954.

Tenn., Nashville.—The State Funding Board contemplates issuing bonds to take the place of the \$11,000,000 short-term notes sold last year and most of which mature July 1. It is expected that 20-40-year bonds will be offered for sale.

Tenn., Rives.—\$10,000 school district bldg. bonds are voted. Address Board of Education.

Tenn., Savannah.—Election is to be held in Hardin county to vote on \$240,000 railroad-aid bonds. W. P. Story is County Judge.

Tex., Austin.—The Attorney-General has approved the following securities: \$18,000 5 per cent. 10-40-year bonds Crosbyton Independent School Dist.; \$65,000 5 per cent. 40-year Westminster Independent School Dist.; \$40,000 city hall, and \$85,000 school bonds, Terrell; \$15,500 5 per cent. 5-40-year Richardson Independent School Dist. bonds; \$200,000 sewerage and \$20,000 public improvement 5 per cent. 30-year bonds, Houston Heights; \$30,000 5 per cent. 20-40-year bonds Road Dist. No. 3, Bell county; \$12,500 5 per cent. 10-40-year bonds Mertens Independent School Dist.; \$24,000 5 per cent. 10-40-year Willis Point water-works bonds; \$16,000 5 per cent. 10-40-year Clarendon water-works bonds; \$360,000 El Paso county and city jail municipal building bonds; \$10,000 water-works, \$5000 electric light, \$10,000 park, \$25,000 street and \$20,000 sewerage bonds, Sherman.

Tex., Belton.—Bids will be received until 10 A. M. May 12 by W. E. Hall, Auditor of Bell county, for \$105,000 5 per cent. 19-40-year optional road bonds.

Tex., Cameron.—Election is to be held to vote on \$100,000 bonds Road Dist. No. 8, Milam county, covering Rockdale and adjacent territory; May 23 Road Dist. No. 7 will vote on \$65,000 bonds. Address County Comms.

Tex., Canadian.—\$4000 water-works bonds are voted. Address The Mayor.

Tex., Carbon.—\$15,000 school bldg. bonds are voted. Address The Mayor.

Tex., Carrollton.—Election will probably be held to vote on \$15,000 high-school building bonds. Address The Mayor.

Tex., Corpus Christi.—\$50,000 additional bonds for street paving are voted. Address The Mayor.

Tex., Dallas.—\$125,000 5 per cent. 10-40 year Dallas County viaduct and bridge bonds have been awarded to McCoy & Co., Chicago, at a premium of \$2450.

Tex., Denton.—\$300,000 bonds of road precinct No. 2 were defeated. Steps are being taken to call another election. Address Road Comms.

Tex., Denison.—Election will probably be called in near future to vote on \$60,000 filtration plant, sewerage and street bonds. Address The Mayor.

Tex., El Paso.—\$200,000 5 per cent. 20-40 year school bonds are voted. F. E. Sawyer is Clerk Board of Education.

Tex., Ennis.—Election is to be held in near future to vote on \$89,000 school, \$40,000 street paving, \$30,000 sewerage and \$30,000 water-works extension and improvement bonds. W. D. Farris is Mayor.

Tex., Kaufman.—Bids will be opened on May 10 for \$225,000 5 per cent. 10-40-year road bonds Justice Precinct No. 2, Kaufman county; denomination \$1000; dated Mch. 9, 1914. James H. Cooley is County Judge.

Tex., McGregor.—\$25,000 School Dist. No. 1 high school bonds are voted. W. A. McWilliams is Secy. Board of Education.

Tex., Dimmitt.—Commonwealth Trust Co., Houston, has purchased at par and interest \$40,000 5 per cent. 10-40-year bonds Dimmitt county common school district No. 1.

Tex., El Paso.—Bids will be received by Park W. Pittman, Judge, El Paso county, for \$360,000 5 per cent. 10-40-year county courthouse and jail bonds. Denomination \$1000.

Tex., Houston Heights.—Election will probably soon be held to vote on \$200,000 paving bonds. Address The Mayor.

Tex., Kaufman.—\$80,000 Improvement Dist. No. 1, Kaufman county, levee bonds are voted. Address County Comms.

Tex., Dresden.—\$25,000 road bonds, Precinct No. 1, Kaufman county, are defeated.

Tex., Kingsville.—\$300,000 Kleburg county courthouse, jail and hospital bonds will soon be offered for sale. Address County Comms.

Tex., New Boston.—\$15,000 5 per cent. 20-40-year water bonds have been purchased by John B. Oldham of Dallas.

Tex., Quanah.—\$20,000 water-works bonds have been awarded to William E. Sweet & Co., Denver, at par and accrued interest.

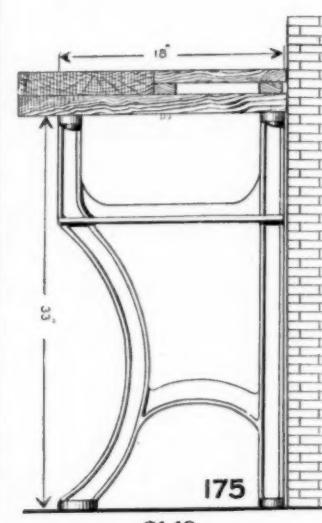
Tex., San Angelo.—Bids will be received until 4 A. M. May 25 for \$80,000 5 per cent. 10-40-year San Angelo School Dist., Tom Green county, high-school building bonds; denomination \$1000. Address S. H. Jenkins, City Secy.

Tex., Temple.—\$600,000 Temple precinct road bonds have been sold to the Harris

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Tex., Timpson.—\$17,000 water-works and \$10,000 street improvement bonds, for which bids will be opened May 1, are 10-10-year 5 per cents; denomination \$1000; dated Apr. 10, 1914. B. J. Hawthorn is Mayor.

Tex., Teague.—Election is to be held May 20 to vote on \$150,000 road-improvement bonds Teague Road Dist., Freestone county. Address County Comms., Fairfield.

Va., Christiansburg.—Voted: \$100,000 Blacksburg Road Dist., Montgomery county, bonds. Address County Comms.

W. Va., Adamston.—Bids will be received by J. C. Garrett, Town Recorder, until 7:30 P. M. May 12 for \$20,000 5 per cent. water and sewer bonds; dated Dec. 2, 1912; maturity Dec. 2, 1945.

W. Va., Beckley.—Election is to be held June 9 to vote on \$180,000 5 per cent. 30-year bonds magisterial district of town, Raleigh county. Joseph Chambers is Prest. County Court.

W. Va., Huntington.—Bids will be received until 2 P. M. May 28 by James K. Oney, Secy., Board of Education, for \$200,000 5 per cent. independent school district bldg. bonds; denomination \$500; dated Apr. 1, 1914; maturity 1924 to 1944.

W. Va., West Union.—Bids will be received until 8 P. M. May 11 for \$62,000 4½ per cent. 10-34 year grading, paving, sewer, bridge and water works bonds; dated May 11, 1914; denominations: \$100, \$500 and \$1000. J. L. McCormick, Recorder.

#### FINANCIAL NOTES.

The Florida Bankers' Association, in convention at Lakeland, Fla., elected officers for the ensuing year as follows: President, Henry G. Aird of Jacksonville; first vice-president, M. E. Clark of Pensacola; second vice-president, W. L. Weaver of Perry; third vice-president, E. A. Latham of New Smyrna; fourth vice-president, E. L. Wirt of Bartow; secretary and treasurer, George R. Desaussure of Jacksonville. The next annual convention will be held at Palatka.

#### Danger in Egyptian Cottonseed.

The Federal horticultural board has issued a notice to all cotton mills, and especially those in the South, to destroy by burning all seed that may be found in bales of imported Egyptian cotton. These seed are likely to contain the larvae of the pink boll-worm, which is very destructive to American cotton. The number of seeds of Egyptian cotton found in a bale of Egyptian lint is probably small, and the presence of any seed in such bales is due to faulty ginning. Ginning and storing, however, does not kill the larvae of the pink boll-worm, which has been known to withstand storage in cottonseed for more than seven months.

So dangerous to the cotton crop of the United States is the pink boll-worm regarded that on May 28, 1913, a quarantine was promulgated designed to prevent the introduction into the United States of this worm by forbidding the importation of cottonseed from all foreign countries excepting two regions in Mexico. Since that date several shipments of cottonseed infested by this worm have been intercepted and destroyed.

#### Railroad Sparks and Forest Fires.

During March 25 forest fires burned on or near the land in the Southern Appalachians, which the Government is securing under the Weeks law for the establishment of national forests. Seven of these fires reported by the Government's forest officers covered more than 10 acres, but 11 were less than one-quarter of an acre in size. The most common cause was railroad sparks. Except for the White Top area, which is on the border line between Virginia and Tennessee, all the areas from which fires were reported

are in North Carolina, South Carolina, Tennessee and Georgia.

#### Seeks Location for Testing Laboratory.

H. P. Hoffmann, 1118 Calhoun street, Fort Wayne, Ind., writes to the MANUFACTURERS RECORD:

"Do you know of any locality in the South, or especially the southeastern part, that would have demand for an up-to-date testing laboratory capable of handling any manner of work in this line—mineral tests, soil tests, fertilizer tests and all other sorts of chemical work? Our equipment is valued at \$10,000 or more. We would like to locate in a good field for such work."

#### Literary Notes.

**Steel Bridge Design.** By Melville B. Wells, C. E. Published by Myron C. Clark Publishing Co., Chicago. Cloth bound, 200 pages, with numerous designs and detailed drawings. Price \$2.50.

This publication is intended for use as a text in classes in engineering colleges and as a reference book in drafting-rooms and by bridge builders and designers. In three of the chapters a general view of the subject is given which will prove of value and interest to students before visiting bridge manufacturing plants, to give them a clear understanding of what may be seen on such visits. The different features of the work of designing are concisely treated. In order to present drawings of well-designed structures directly at hand for students and others, a large number of shop and general drawings of

American practice in bridge designing have been reproduced and so arranged at the end of the book that they may be readily referred to. A chapter on the strength of materials has been included in order that reference may be easily made without seeking a special publication on the subject. A number of illustrations of machinery and tools used in connection with steel and bridge work are included in the book.

**How to Build Up Furnace Efficiency.** By Joseph W. Hays, consulting engineer, author and publisher, Rogers Place, Chicago, Ill. 126 pages, paper bound. Price \$1.

The seventh edition of this handbook of fuel economy has been issued after extensive revision by the author. In this edition charts, diagrams and illustrations have been added. The publication is as free from theoretical and highly technical data as practicable, the object being to show the manager, superintendent, engineer and fireman of a power plant how to proceed to actually work a reduction in the fuel expense. It is stated that the average steam plant wastes a large per cent. of its fuel that could be saved by the proper understanding of economical methods. The author holds that any man who can read a scale is qualified to bring any boiler furnace to the highest state of efficiency consistent with the fuel and furnace equipment. Anecdotes are used throughout the book for the purpose of illustration, and the narrative style has been followed to some extent to sustain the reader's interest. The rather dry subject of combustion has been given the human interest sometimes necessary to hold the attention of the reader.

# Steam Hose Built for SERVICE



Too often, the weak spot in power equipment is steam hose. Efficiency experts will plan and plan for utmost power-efficiency, while others are losing steam, power and money through steam hose made to meet a price.

Goodyear Steam Hose is made for hardest service—made to meet maximum contraction and expansion

where steam is shut off and turned on at frequent intervals. Made of the best materials and brought to highest efficiency by exact manufacturing methods. Built to meet special definite specifications for the most exacting conditions and longest service. Service being the paramount consideration, the economy takes care of itself.

#### "Goodyear" Brand

Designed for highest pressure service.

The best in steam hose that has been made to date. In better quality, added efficiency and greater all-round utility it insures an economy not approached in steam hose bought on "price" only.



#### "Monterey" Brand

Adapted for high and ordinary pressures.

Superior to many other "best" grades from the standpoint of service.

For hot water and low pressure service, use the "Wyoga" brand.

#### Use This Efficiency Service

Goodyear quality leads in mechanical goods just as it does in Tiredom. Whatever your problem on Hose, Packing, Belting or Valves, the Goodyear Efficiency Department has solved them. Put

your factory equipment problems up to Goodyear. It means service. Service means the best kind of economy.

**THE GOODYEAR TIRE & RUBBER COMPANY,**  
MECHANICAL GOODS DEPARTMENT

**AKRON, OHIO**

(1543)

# Classified Opportunities

## MEN WANTED

**AGENTS WANTED** among supply dealers and salesmen for an exceptional house-lighting machine, suitable for small homes as well as large; simple, durable, economical; satisfaction guaranteed to customers; has excellent selling points; a fine proposition. Write for terms. The Alexander N. Milburn Co., Baltimore, Md.

ACTIVE, hustling sales organization with good backing, one who can show results, wanted to represent and push our patented sheet steel plate used as reinforcement and forms in fireproof floors, partitions, roofs, etc.; commission basis. Address No. 1519, care Manufacturers Record, Balt., Md.

**IF ACTUALLY QUALIFIED** for executive, technical, professional or administrative position between \$2500 and \$12,000, communicate confidentially with undersigned counsel. Give name and address only for preliminary details; strictest privacy and safety assured. R. W. Bixby, Lock Box 134-CI, Buffalo, N. Y.

## AGENCIES WANTED

**SALES AGENCY** wanted for saleable specialties pertaining to hardware, auto, sporting goods or kindred trades. No financing beyond marketing. Acquainted with Greater New York and Southern trade. Fred A. Mannheim, 1 Hudson St., New York City.

**GERMANY.**—We want to represent American manufacturers in Germany. H. Drawe & Co., Agents, Frankfort o. M., Germany.

**WANTED**—Accounts with manufacturers desiring representation in supplies for fruit growers for Virginia; two years' experience in fruit industry. Address No. 1490, care Manufacturers Record, Balt., Md.

**WANTED**—Sales agency for all lines pertaining to builders' specialties; East Tennessee as territory; can furnish satisfactory references to interested concern; modern warehouse facilities. Address Daniel Briscoe, Jr., 325-327 State St., Knoxville, Tenn.

## SITUATIONS WANTED

**WANTED**—Position as office building manager. Eight years' experience in every department of office building work. Would be glad to give references. Reason for changing desire to go South or West. Address No. 1516, care Manufacturers Record, Balt., Md.

**WANTED**—After May 1, position as secretary or traffic manager live commercial organization in the South or Southwest; good secretary; better traffic man. Address Traffic Manager, Box No. 252, Durham, N. C.

**WANTED**—Position as superintendent of quarry; 14 years' experience; young man with small family; am hustler and good organizer; can furnish the very best of references. Address M. B. Malone, P. O. Substation No. 2, Charlotte, N. C.

**A CAPABLE** executive man of large experience in both office and operative manufacturing work desires to change; preferably in the Southern States; best references. No. 1500, care Manufacturers Record, Balt., Md.

**POSITION WANTED.**—Young man, 36, now ast. treas. \$500,000 manufacturing concern, Alabama, desires to make changes now in charge main offices and finances of company; accounting and cost department, purchasing and stores department, with general office supervision; thoroughly familiar with modern office management, methods and systematizing, handling of clerical and other help, preparation of detailed monthly reports of operations, etc.; with present employer five years, from whom can furnish best references. Will apply in person if necessary, and only ask opportunity to demonstrate ability. Address No. 1520, care Manufacturers Record, Balt., Md.

## EDUCATIONAL

**RENSSELAER POLYTECHNIC INSTITUTE**, TROY, N. Y.—Courses in Civil, Mechanical, Electrical and Chemical Engineering and General Science, leading to the degree of Civil Engineer (C.E.), Mechanical Engineer (M.E.), Electrical Engineer (E.E.), Chemical Engineer (Ch.E.), and Bachelor of Science (B.S.). Also special courses. Sparsely equipped new engineering laboratories. Send for catalogue to Registrar.

## TRUST COMPANY WANTED

**WANTED—TRUST COMPANY.**—Southern city, 20,000 people, 400,000 people radius 60 miles, wants trust company; splendid opportunity; assistance locally. Address No. 1499, care Manufacturers Record, Balt., Md.

## BUSINESS OPPORTUNITIES

**WANTED**—To correspond with party who would be interested in investing in and becoming connected with management of a general building and builders' supply business. Address Box 375, Charlottesville, Va., stating amount you can invest and position you can fill.

## RATES AND CONDITIONS

Rate 20 cents per line per insertion. Minimum space accepted, four lines. Maximum space accepted, 25 lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 18c per line; 300 lines, 16c per line; 500 lines or more, 15c per line.

## ELECTRIC LIGHT PLANT

**ASSIGNEE MUST SELL** electric-light plant, complete, 20-year franchise, in a good location. A good factory site, with 2 large 2-story buildings, located on main line of Frisco R. R.; 12 machines, used in the manufacturing of screen doors. Address L. L. Thompson, Assignee, Lilbourn, Mo.

## BRICK AND TILE WORKS

**FOR SALE**—Brick and tile works; daily capacity tiles 10,000, bricks 20,000; water transportation to principal Eastern cities; excellent opportunity for anyone who understands the manufacture of tile and brick. For further particulars address J. E. Warren, Newport News, Virginia.

## ICE AND ELECTRIC LIGHT PLANT

**FOR SALE**—Ice and electric-light plant in connection, in Kentucky town, 2000 inhabitants. We have franchise for water-works, and all can be operated together at low cost. Full particulars given to those who mean business and have money. Address Smith Cooperage Co., Louisville, Ky.

## SAND-LIME BRICK FACTORY

**FOR SALE**—A complete sand-lime brick factory, capacity 20,000 per day; will sell as a whole or in part; 125 H. P. engine and boiler; 4-mold Chisholm-Boyd press; Stevenson 9-ft. dry pan; 72-ft. cylinder; full equipment of cars; belting, shafting, etc. Address Cumberland Brick Co., Cumberland, Md.

## COTTONSEED OIL MILL

**FOR SALE**—Modern, well-equipped, up-to-date, ideally located 3-press (Callahan) cottonseed oil mill; operation 2 years; full description on request. A bargain for quick buyer. Original cost, about \$75,000. Salisbury Realty & Insurance Co., Salisbury, N. C.

## JOB PRINTING PLANT

ON ACCOUNT of the death of my husband, will sell at a bargain complete job printing outfit. Address Emma Morrison, Knoxville, Iowa.

## ROLLER MILL

**FOR SALE**—Fine roller mill property, located in lower Long Green Valley, near Hartford road, 10 miles from Baltimore, 1 mile from station; large 4-story stone mill, 40-barrel capacity; sawmill, chip and corn meal mill, cider mill, good dwelling, store and warehouse, large barn and stable, 28 acres of land; can sell at a bargain. Robt. H. Blackburn, 420 Law Bldg., Baltimore, Md.

## OIL MILL

**FOR SALE AT A BARGAIN**—A Complete 3-Press Oil Mill, operated for a short time. L. C. Schloss, Woodville, Miss.

## MINERAL AND TIMBER LANDS, WATER POWERS AND MISCELLANEOUS PROPERTIES

**FOR SALE**—Orange groves, farms, cut-over lands, timber lands of all kinds, and brokerage. Address George A. Mawman, 109 Second St., Palatka, Florida.

**BAUXITE**, fuller's earth and kaolin deposits for sale outright or on royalty basis. We are in position to furnish you with farm lands or mineral clay lands anywhere in South Georgia. Southern Insurance & Realty Company, E. W. Gould, R. C. Houser, Georgia Life Bldg., Macon, Ga.

20½ ACRES, kaolin deposit between 35 and 50 acres, \$15,000. 20½ acres Fuller's Earth deposit, \$15,000. Southern Ins. & Realty Co., Georgia Life Bldg., Macon, Ga.

## BRICK CLAY PROPERTY

**BRICK CLAY.**—Attention, Brick Men! Have located within five miles of Atlanta large supply fine brick clay; excellent railroad facilities. This property is splendid location for Southern market. Can be bought reasonably, considering actual value. Estate of James E. Lynch, P. O. Box 519, Atlanta, Ga.

## OIL LAND

3 ACRES oil land, Caddo Parish, La., located in shallow stratum section; six to eight hundred to oil sand; title clear; \$300 acre, cash. L. L. Burkhead, Columbus, N. M.

## PHOSPHATE ROCK DEPOSIT

**FOR SALE**—500 acres of blue rock phosphate land near Mt. Pleasant, Tenn., containing 2,000,000 tons running from 58 to 72% bone phosphate of lime. Spur of L. & N. R. R. runs through it. Capt. W. N. Hughes, U. S. A., 52½ Broadway, Nashville, Tenn.

## TIMBER LAND FOR SALE

TWO HUNDRED THOUSAND (200,000) acres timber land in Florida, containing over 5,000,000 feet of original growth pine; has been cruised by expert; placed on the market for the first time at a very low figure. South Carolina timber; 15,000 acres on the Atlantic Coast Line and Southern Railroad. Estimated 65,000,000 feet short-leaf pine.

For price and full particulars apply to Johnson's American and Foreign Real Estate Exchange, 945 Pennsylvania Avenue, Washington, D. C.

## INDUSTRIAL PLANTS FOR SALE

## GINNING PLANT INCLUDING MACHINERY

**BANKRUPT SALE.**—There will be sold at Rossville, Ga., May 5, 1914, the plant of the Southern Combing Gin Co., consisting of a reinforced concrete building 60x180, two stories, complete outfit for manufacturing gins, complete gininery equipped plant, ready for operation. Also 28 town lots adjoining plant in Rossville, Ga., four miles from Chattanooga, Tenn. Fine opportunity for investment. All property in excellent condition. Address communications to T. F. McFarland, Trustee, Rossville, Ga.

# Classified Opportunities

## COAL LAND FOR SALE

LAST CHANCE to buy coal in Dickenson county, Virginia; right in the heart of the best coal in Virginia. We have for sale 7000 acres on and near the new C. C. & O. R. R. When completed, prices will double. Chase & Damron, Clintwood, Va.

A FEW GOOD TRACTS in Southern States at prices attractive for investment or operation. Hemlock, spruce, oak, poplar, gum, cypress. Real Estate Investment Co., sit Connecticut Ave., Washington, D. C.

1500 ACRES virgin timber in McDowell county, N. C., on line of C. C. & O. Ry. Fee simple. Address owner, E. M. Henofer, 522 Wyalusing Ave., Philadelphia, Pa.

TIMBER AND TIMBER LANDS IN ALABAMA.—Tracts of virgin pine and hard wood, 5000 to 20,000 acres each; fee simple; all finely located; 9000-acre tract pierced by main trunk-line railroad and admirably situated for colonization; cut good; prices right. Correspondence solicited from parties meaning business; otherwise don't write. T. M. Bradley, 1029 First National Bank Bldg., Birmingham, Ala.

TIMBER TRACTS located for manufacturers or investors by practical timbermen. Correspondence solicited. Jo A. Parker, Parma, Mo.

MANUFACTURER desiring medium size tract of yellow pine timber at favorable price can learn of something to his advantage by addressing Box 27, Ellisville, Miss.

5000 ACRES of virgin hardwood timbered land in East Tennessee, \$10 per acre; would exchange. Farm Realty Co., 828 Jefferson Co. Bank Bldg., Birmingham, Ala.

## FARM AND TIMBER LANDS

FARM AND TIMBER LAND on the easy payment plan; some small improved tracts; good for cotton, corn, alfalfa and grain. Prices from \$4 to \$25 per acre. W. Knight, Real Estate Dealer, Bigelow, Arkansas.

HAVE select list of large and small farm properties, also timber, coal and colonization tracts, and a large list of income properties for sale and exchange. Let me know your wants. Arthur M. Connor, 224 Oxford Bldg., Washington, D. C.

## COLONIAL ESTATES AND STOCK FARMS

COLONIAL ESTATES AND STOCK FARMS in Virginia. Green & Redd, Richmond, Va.

## COLONIZATION LAND

FOR SALE—Marion county, Florida, 20,000 acres, high and dry; an excellent colonization proposition at a ridiculously low price; \$1 per acre. For terms and particulars address Partridge-Woodrow Company, Huntington, W. Va., or Ocala, Florida.

## MISSISSIPPI PLANTATIONS

MANY fine plantations in Yazoo-Mississippi Delta for \$20 to \$50 per acre; known as most fertile section on earth; will be worth many times the money after Government takes over levees. Correspondence of speculators or homeseekers solicited. Peter Stubblefield, Yazoo City, Miss.

## ORCHARDS FOR SALE

ONE ORCHARD, containing 200 acres land, 10,000 trees, most of them in bearing, 2 good houses, all necessary packing-houses and outbuildings. A money-maker. Price \$25,000. An orchard with about 6000 fruit trees, practically all in bearing; all necessary buildings and near shipping station. Price \$7500.

A good farm of 80 acres with 1800 bearing peach trees, near church and school; a fine home. Price \$2500.

One 14-acre bearing peach orchard, containing 1900 trees. Price \$800. And we have some others. Write us for what you want. Address No. 1514, care Manufacturers Record, Baltimore, Md.

## FRUIT, FARM AND TRUCK LANDS

### ARKANSAS

FAMOUS SPRINGDALE FRUIT DISTRICT.—Best part of Ozarks; fine class of people; no malaria, mosquitoes, negroes, saloons; pure soft water. Summer homes, bearing orchard, cheap stock lands. Free lists. Fredricks, Springdale, Arkansas.

A FARM of 240 acres, 7 miles from Hamburg, Ark. Improved; 100 acres cleared; 140 acres virgin timber. Soil chocolate loam, very fertile, 2 miles from Fountain Hill, a shipping point. Land in the county being leased for oil. Will sell for \$30 per acre or lease for \$2 per acre. Dr. H. F. Mikell, Gladstone Hotel, Kansas City, Mo.

### FLORIDA

THREE MONTHS FREE.—Subscription to the Indian River Farmer. For truckers, fruit growers, general farmers, and folks who want to know about Florida. Address Indian River Farmer, Dept. "V-1," Vero, Fla.

14,000 ACRES, partly developed. On main line East Coast and Canal. Good land, Hotel, store buildings and stock. Several homes. All personal property and farming utensils. Drainage system and roads all built. A large number of prospects. Good proposition for right party. Conrad Oates Company, Daytona, Fla.

AN EXCELLENT PROPERTY FOR HOLDING AS INVESTMENT OR FOR IMMEDIATE DEVELOPMENT.—3120 acres in Suwannee county, Florida, about 3 miles east of O'Brien, a town of 300 population, with good school, churches, sawmill, turpentine still, good stores and other advantages, the main line of A. C. L. R. R. passing directly through it.

It is situated in a general farming section where excellent crops of corn, cotton, sugar-cane, sweet potatoes, velvet beans, cowpeas, and numerous others are raised. Two main roads leading to O'Brien cross the land, and a number of improved farms adjoin it. The soil is Norfolk loam with clay subsoil, and when properly cultivated will produce all the crops for which this section of Florida is noted.

This property is offered at \$6 per acre on following terms: One-fourth cash, and balance in 1, 2 and 3 years, deferred payments to be secured by mortgage at 8%. A small discount may be arranged for all cash. Address George L. Colburn, Lake City, Fla.

THE PALATKA FARMS COMPANY of Palatka, Florida, offers to homeseekers the very superior advantages of splendid soil, adapted to potatoes, corn and trucking, or that for oranges and grapefruit, or for combination of both, with location unsurpassed, lying along the beautiful St. Johns River, 2 miles of Palatka, an up-to-date city of 8000 population. It boasts of electric-light and gas plants, four railroads and cheap river transportation. Write for literature. P. J. Becks, Palatka, Fla.

FOR SALE—Citrus land; high; among clear lakes; the best adapted for orange or grapefruit culture; S. A. L. R. R. just starting through this territory. Buy now while prices are low. J. D. Clark, Bartow, Fla.

## GEORGIA

850 ACRES fine farming land as you will find in Georgia, \$25 per acre; will raise anything that grows in Central Ga.; close to railway and county seat. Southern Ins. & Realty Co., Ga. Life Bldg., Macon, Ga.

## MISSISSIPPI

500 ACRES near railroad; choice farm, stock ranch and box factory location; watered; timbered; \$12 per acre; one-fourth cash. J. D. Westmoreland, Magnolia, Miss.

## TEXAS

60 ACRES irrigated land, all in cultivation, Rio Grande valley, Southwest Texas, will sacrifice if taken immediately account death of my husband. Address W., 1211 2nd Ave., Meridian, Miss.

## VIRGINIA

FOR SALE—Beautiful property near mountains, between Chesapeake & Ohio and Southern Railway, near Gordonsville; 81 acres in grass, with small woodland; well fenced and fertile; neighborhood largely composed of prominent Richmond people; splendid mountain views. For price and particulars address Thomas B. Love, Bank of Commerce and Trusts, Richmond, Va.

70-ACRE FARM 30 miles from Richmond, on Southern Ry., half mile from station, on good public road; good young orchard, dwelling-house, numerous outbuildings, including stables; half in cultivation, balance in woods. Price \$2100; terms to suit. A great bargain. Possession at once. Address "Owner," Box 125, Amelia Courthouse, Va.

## FINANCIAL

FOR SALE—6, 7, 8 per cent. first mortgages on improved farms, running from 3 to 10 years. Mortgages only 30 per cent. of the total farm value. \$20 State Bank of Omaha, Omaha, Neb.

FOR SALE—\$4000 5-year 6 per cent. real estate coupon bonds of the Farm Land & Coal Company, secured by farming lands in North Dakota. Dated February 1, 1912. Due February 1, 1917. Interest payable February 1 and August 1 at Forest City National Bank, Rockford, Ill. For sale as a whole or in multiples of \$800. Price, \$900 and interest to yield about 10 per cent. J. J. McCloskey Realty Company, Asheville, N. C.

WE ARE SELLING the capital stock of the United Development Company, a company that proposes to buy, develop and colonize lands all over the South. The natural increase in values will pay good dividends. Your money is safe in lands. Stockholders can buy lands from the company at minimum prices. Let us send particulars. Bolton Agency Co., 322½ 19th St., Birmingham, Ala.

## MACHINERY AND SUPPLIES

FOR SALE—One slightly used 18"x10"x12' Laidlaw-Dunn-Gordon Underwriters' Fire Pump, with capacity 1000 gallons per minute at 70 R. P. M., suction 12", discharge 8". This pump is practically new and can be had at a low figure. Address the Randle Machinery Co., 1734 Powers St., Cincinnati, O.

FOR SALE—Two sets of 30"x10" Allis-Chalmers crushing rolls, complete, with hoppers and pulleys, ready to set up and start crushing stone; a great bargain. Address F. L. Robbins, Salisbury, N. C.

## SAFE FOR SALE

WILL SELL OR EXCHANGE large iron safe, burglar and fire proof, double-door vault with two combinations and time lock; dimensions outside, H. 82, W. 68, D. 41; inside, H. 62, W. 54, D. 21; lots of space; pencil drawing showing inside on request. We want burglar-proof safe suitable for inside vault and vault doors. E. E. Emerson, Spray, N. C.

## WAGONS FOR SALE

WAGONS FOR SALE.—Ten Troy dump-bottom reversible traction wagons, 3½-yard, with 10-inch tires; have been used four months. Geo. G. Henderson, care Manufacturers Record, Balti., Md.

## RAILWAY TIES

WANTED—To sell 30,000 white oak ties, 6x8x5; 2500 red oak, 7x8x5. Ties ready for delivery at Louisville, Miss., and adjoining towns. Quote prices f. o. b. cars Louisville. Also, want contract for sap pine ties. The People's Tie & Timber Co., Louisville, Miss.

## PATENTS FOR SALE

STOP, STAY OUT AND WONDER.—Latest improved double combination door lock, operated with two keys in connection with the knob and spindle; absolutely burglar-proof. The lock is of ordinary size and form. For further information apply to James T. Brockin, Huffman, Ark.

## PATENT ATTORNEYS

EUGENE C. BROWN, ENGINEER AND PATENT LAWYER, Suite 40 Victor Building, Washington, D. C. Member Bar U. S. Supreme Court. Patents and Trademarks. Inventions and Legal standpoints in my prosecution of patents. An experience of over 9 years as Examiner in U. S. Patent Office and over 6 years as Patent Expert in important patent suits are my especial qualifications. Reports upon validity and infringement. Send sketch of invention for advice.

PATENTS.—Herbert Jenner, patent atty. and mechanical expert, 606 F St., Washington, D. C. Report free or charge if a patent can be had and its exact cost. Send for circular.

PATENTS THAT PROTECT.—Careful, honest work in every case. Your ideas; they may bring you wealth. 64-page book free. Fitzgerald & Co., 817 F street, Washington, D. C. Established 1878. Send for our book.

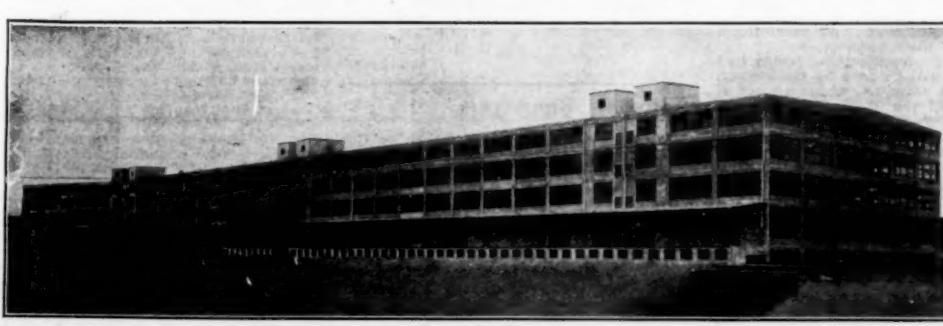
PATENT YOUR INVENTION.—Send sketch for free expert search and report as to patentability. Books on Inventions and patents, and book of references from congressmen, manufacturers, bankers and inventors, sent free. John S. Duffle & Co., Patent Atty., 630 F St. N. W., Wash., D. C.

PATENTS THAT PROTECT AND PAY.—Advice and books free. Highest references. Best results. Promptness assured. Send sketch or model for free search of Patent Office records. Trade-marks registered. Watson E. Coleman, Patent Lawyer, 624 F St., Washington, D. C.

PATENT YOUR IDEAS.—\$8000 offered for certain inventions; book, "How to Obtain a Patent" and "What to Invent," sent free upon request; send rough sketch for free report as to patentability. We advertise your patent for sale at our expense. Chandler & Chandler, patent attorneys, 978 F St., Washington, D. C.

PATENTS SECURED OR FREE RETURNED. Send sketch for free report as to patentability. Guide book and what to invent, with valuable list of inventions wanted, sent free; \$1,000,000 offered for one invention; \$16,000 for others. Patents secured by us advertised free in World's Progress; sample free. Victor J. Evans & Co., Washington, D. C.

# STORAGE AND SHIPPING FACILITIES FOR JOBBERS AND MANUFACTURERS



Located in the Heart of Jacksonville's Shipping Section

AT JACKSONVILLE, FLA.  
500,000 Feet of Floor Space

Cheap Storage Charges.

Insurance Rate ¼ of 1%.

A New Building that is Fire, Rat, Vermin and Burglar Proof.

**Union Terminal Company**  
Jacksonville, Fla.

# PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

## GOVERNMENT PROPOSALS

**PROPOSALS FOR VALVE-PIT AND GUTTER COVERS, GRATINGS, AND SEATS; GRILLE FRAMES, DUMB WAITERS, LADDERS, SPONGES, RUBBING FELT, CALCIMINE BRUSHES, PAINT-BRUSHES, PAINTS, WHITE ZINC, WHITE LEAD, LAMPBLACK, VARNISH, LINSEED OIL, GRAIN ALCOHOL, PUTTY, ELECTRIC CABLE, INSULATING TAPE, CIRCULAR LOOM, MARINE FIXTURES, AND CROSS-ARM PINS.** Sealed proposals will be received at the office of the General Purchasing Officer, Panama Canal, Washington, D. C., until 10:30 A. M., May 16, 1914, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and general information relating to this Circular (No. 848) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 614 Whitney-Central Building, New Orleans, La., and 1086 North Point Street, San Francisco, Cal.; also from the U. S. Engineer Office in the following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Md.; Philadelphia, Pa.; Pittsburgh, Pa.; Boston, Mass.; Buffalo, N. Y.; Cleveland, Ohio; Cincinnati, Ohio; Chicago, Ill.; Milwaukee, Wis.; St. Louis, Mo.; Detroit, Mich.; Milwaukee, Wis.; St. Paul, Minn.; Chattanooga, Tenn.; Louisville, Ky.; Mobile, Ala.; Galveston, Tex.; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill.; and Commercial Club, Tacoma, Wash. F. C. BOGGS, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

**PROPOSALS FOR LUBRICATING OILS AND GREASES.** Kerosene and Gasoline. Annual estimate for period ending June 30, 1915. Sealed proposals will be received at the office of the General Purchasing Officer, Panama Canal, Washington, D. C., until 10:30 A. M., May 21, 1914, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and general information relating to this Circular (No. 850) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 614 Whitney-Central Building, New Orleans, La., and 1086 North Point Street, San Francisco, Cal.; also from the U. S. Engineer Office in the following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Md.; Philadelphia, Pa.; Pittsburgh, Pa.; Boston, Mass.; Buffalo, N. Y.; Cleveland, Ohio; Cincinnati, Ohio; Chicago, Ill.; St. Louis, Mo.; Detroit, Mich.; Milwaukee, Wis.; St. Paul, Minn.; Chattanooga, Tenn.; Louisville, Ky.; Mobile, Ala.; and Galveston, Tex.; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill.; and Commercial Club, Tacoma, Wash. F. C. BOGGS, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

**TREASURY DEPARTMENT.** Supervising Architect's Office, Washington, D. C., April 18, 1914. Sealed proposals will be opened in this office at 3 P. M., May 29, 1914, for the construction, complete (including mechanical equipment, lighting fixtures, and approaches), of the United States postoffice at Rocky Mount, N. C. The building is two stories and basement, ground area, 4700 square feet; first floor fireproof; stone and brick facing; composition roof. Drawings and specifications may be obtained from the custodian of site at Rocky Mount, N. C., or at this office, in the discretion of the Supervising Architect. O. WENDEROTH, Supervising Architect.

**U. S. ENGINEER OFFICE,** Room 309 Custom-house, Baltimore, Md., April 2, 1914. Sealed proposals for dredging in certain rivers and harbors on east shore of Chesapeake Bay will be received at this office until one o'clock P. M., May 4, 1914, and then publicly opened. Information on application. LANSING H. BEACH, Col., Engrs.

**U. S. ENGINEER OFFICE,** Wilmington, N. C., Apr. 9, 1914. Sealed proposals for furnishing and delivering about 11,000 tons riprap stone at Wilmington, N. C., will be received at this office until 12 M., May 8, 1914. Information on application. H. W. STICKLE, Maj., Engrs.

## BOND OFFERINGS

**\$14,000 6% 20-Year Drainage Bonds**

Aleorn County Drainage Commissioners will on May 25, 1914, offer for sale \$14,000 6% 20-year Seven-Mile Drainage Bonds. Address W. J. LAMB, Atty., Corinth, Miss.

**Bonds For Sale**

The Town of Norton, Va., has five thousand dollars thirty-year 5 per cent. Street Improvement Bonds for sale. Address T. M. PEPPER, Mayor,

or G. A. SMITH, Chairman Finance Committee.

**\$50,000 6% Bonds**

Hazlehurst, Mississippi, April 17, 1914. Sealed bids will be received by the Board of Supervisors of Copiah County, Mississippi, up to 2 P. M., May 4, 1914, for the purchase of \$50,000 Supervisor's District Number Two Road Bonds, bearing 6 per cent. interest, payable semi-annually. Bids to be accompanied by certified check for 5 per cent. of amount bid.

B. SHELTON, Chancery Clerk.

**PROPOSAL ADVERTISING INFORMATION**

RATE: 20 cents per line per insertion.

PUBLICATION DAY: Thursday.

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**THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:**

Published every business day; gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements.

The same rate applies—20 cents per line per insertion.

**Mississippi State Bonds**

Under authority of Chapter 107, Laws 1914, the State of Mississippi will issue and sell \$1,250,000 of 4½ per cent. bonds, and sealed bids will be received at the Governor's office in Jackson, Mississippi, until noon May 20, 1914.

For further information write Governor EARL BREWER, or State Treasurer F. S. STOVAL, Jackson, Mississippi.

**Bond Sale**

Sealed bids will be received by J. R. Cox, Secretary of the Board of Improvement of Bridge Improvement District Number One of the City of Newport, Arkansas, until 10:30 A. M., May 22, 1914, at the office of Jno. W. & Jos. M. Stayton, Newport, Arkansas, for the purchase of not less than \$24,660 6%, 5½% and 5% bonds of Bridge Improvement District Number One of the City of Newport, Ark.

For further information write to the undersigned.

J. R. COX, Secretary,  
Newport, Arkansas.

Dated this the 16th day of April, 1914.

**Bonds For Sale****BLEDSOE COUNTY PIKE ROAD BONDS**

Pikeville, Tenn., April 13, 1914.

Sealed proposals will be received by Solon L. Robinson, County Judge, and M. G. Blackburn, Chrmn. Co. Finance Committee, until May 12 at 3 o'clock P. M. for the purchase of \$97,000 5 per cent. Pike road bonds. Bonds are of \$1000 denomination, and interest payable annually. \$50,000 mature in 30 years and \$47,000 mature in 40 years. Payable at the office of the County Trustee.

All bids must be accompanied by a certified check for 5 per cent. of the amount of bonds bid for.

**Notice of Proposal to Issue \$40,000 Claiborne County Bonds**

Port Gibson, Miss.

By order of the Board of Supervisors of Claiborne County, State of Mississippi, notice is hereby given that for the purpose of paying off the floating indebtedness of said county and providing a revenue for the General Fund for the year 1914, bonds of forty thousand dollars, said bonds to mature twenty years from the date of their issuance, to bear interest at the rate of 5 per cent. per annum, payable annually at the Hanover National Bank, New York city, N. Y.; to be in denomination of one thousand dollars each; to be numbered in regular series from one upward; to be registered as issued, to be payable to bearer, and shall not be sold for less than their face value. Said bonds shall mature twenty years from the date of their issuance, and paid at the Hanover National Bank, New York city, N. Y., and said bonds shall show on their face for what purpose issued. Sinking fund will be provided for the payment of the interest on said bonds and for the redemption of said bonds by levying annually a special tax to be used exclusively in paying the interest on said bonds and providing a sinking fund for their redemption.

All expenses of preparing the bonds and delivering them will be paid by the county. These bonds will be issued under an act of the Legislature of the State of Mississippi, approved February 19, 1914, authorizing said county to issue same. That a check of five hundred dollars, certified by some bank, must be deposited with each bid to show good faith.

That sealed bids for the said bonds will be received by said board at their regular May, A. D. 1914, meeting up to 2 P. M. on the first Monday and 4th day of May, at which time said bids will be opened and said bonds sold and awarded to the highest and best bidder or bidders, the Board, however, reserving the right to reject any and all bids for said bonds.

Witness my hand and seal of office this the 7th day of April, 1914.

B. H. MOREHEAD, Chancery Clerk.

**Bonds For Sale**

Sullivan Power Company of Laurens, South Carolina, has executed to the Home Trust Company \$50,000 of first mortgage bonds on its Hydro-Electric plant for sale. These bonds run from one to twenty years, and bear 6 per cent. interest, payable semi-annually. The plant has been in successful operation for several years and has long contracts. This is the first and only bonds it has ever issued. These bonds are guaranteed by a strong company.

HOME TRUST CO., Laurens, S. C.

**Notice of Sale of \$75,000 Road Bonds**

The County Judge of Navarro County, Texas, will receive sealed bids up to 10:30 A. M. May 15, 1914, for \$75,000 of bonds of Road District Number Three of Navarro County, Texas. Bonds are dated September 1, 1913, due and payable 40 years from date of issue, either with 20-year option, or serially, \$2000 per annum after the first year. Interest payable semi-annually at the office of the County Treasurer at Corsicana, Texas, or in New York, at the option of the holder. Denomination \$1000. Certified check for \$1000, payable to R. R. Owen, County Judge, to accompany each bid. Any further information desired will be furnished by the undersigned, to whom all bids must be addressed. The right is reserved to reject any or all bids.

H. D. JOHNSON, County Auditor, Corsicana, Texas.

**BUILDINGS****Notice to Contractors**

Athens, Ga. Plans and specifications of the proposed V. M. C. A. building, Athens, Ga., may be had by applying to the undersigned and depositing a check for \$25 to guarantee the safe return of said plans and specifications. A notice will be given prospective bidders thirty days in advance of the time set for receiving bids for the erection of said building.

J. W. BARNETT.

**City Hall and Police Headquarters**

Tampa, Fla. Bids for the construction of City Hall and Police Headquarters at Tampa, Florida. Sealed proposals will be received by the Board of Public Works at Tampa, Florida, from general contractors on or before Tuesday, May 12, 1914, 2 P. M. for the construction of above buildings. Each bid must be accompanied by a certified check in the sum of 2 per cent. of the amount of the bid, check to be made payable to the Board of Public Works.

Contractors can obtain plans by applying to Bonfoey & Elliott, Architects, Tampa, Florida. Each application must be accompanied by a certified check of \$50. This entitles applicant to one complete set of plans and specifications. \$40 of the above amount to be returned upon returning plans in good condition. Additional plans can be obtained by depositing certified check of \$15 per set. \$5 of this amount to be returned upon returning plans in good condition. Deposit checks to be made payable to Bonfoey & Elliott.

Proposals for furnishing and installing complete elevator equipment in above buildings will be received on above date. Each bid must be accompanied by a certified check of 2 per cent. of the bid, made payable to the Board of Public Works. Plans and specifications can be obtained by applying to Bonfoey & Elliott Architects.

The Board of Public Works reserves the right to reject any or all bids submitted.

D. B. McKAY, Chairman.

Attest: ALLEN THOMAS, Clerk.

**Remodeling School Building**

Office of the Superintendent, City Public Schools.

Charleston, S. C., April 22, 1914.

Bids will be received up to 12 o'clock noon Monday, May 25, 1914, by the City Board of Public School Commissioners for the remodeling of the Courtney Public School Building, Charleston, S. C., in accordance with the plans and specifications prepared for the same by J. D. Newcomer, architect, Charleston, S. C. All bids to be handed in to A. B. Rhett, Superintendent City Public Schools, at his office in the City of Charleston within the time above specified and each bid to be accompanied by a certified check for \$1000, made payable to James Simons, chairman, as a guarantee that the successful bidder will enter into contract.

The successful bidder will be required to furnish a surety company's bond of 25 per cent. of the contract price for the faithful performance of the contract. The plans and specifications can be seen and information in reference to same can be had from J. D. Guy, Esq., who will superintend the construction on application to him at the Colored Industrial School, corner of President and Fishburn streets. Separate bids for installing a hot-water heating system in said building are invited. For information apply to Mr. J. R. Guy. The Board reserves the right to accept any or to reject any or all bids.

A. B. RHETT, Superintendent.

**Bond Sale**

Sealed proposals will be received by Geo. L. Huffman, County Judge of Harrison County, Texas, until 12 o'clock noon Thursday, May 14, 1914, for \$300,000 5 per cent. Road District No. 1 bonds. Date of bonds, April 1, 1914; due 1954; optional after 10 years.

Bids for these bonds will be received for \$100,000 lots or entire issue.

Certified check for 1 per cent. of amount of bid must accompany bid. Right to reject any bid is reserved.

Address

GEO. L. HUFFMAN,  
County Judge,  
Marshall, Texas.

# PROPOSALS

SEWERS

WATER-WORKS

ELECTRIC LIGHT PLANTS

BRIDGES

## New Jail Building at Independence, Va.

Bids will be received for building the new Grayson County Jail and Jailer's Residence at Independence, Va., up to May 19, 1914, at which time the same will be opened. Bids must be accompanied by certified check for \$300, payable to Board of Supervisors of Grayson County, which will be returned to bidder in case bid is not accepted, etc., the bidder being required to visit the grounds and become acquainted with local conditions before bidding. Plans and specifications can be seen on file in Grayson County Court Clerk's Office.

Right is reserved to reject any or all bids, April 24, 1914.

C. H. EDWRDS, Chmn.;  
H. GRAYBEAL,  
S. C. PLUMMER,  
Supervisors.

By I. B. BRYANT, Clerk.

## Courthouse

### NOTICE TO CONTRACTORS.

Sealed bids will be received by the County Court of New Madrid County, Missouri, up to 12 o'clock noon on Monday, the eighth day of June, 1914, for the erection and completion of a three-story fireproof, brick-faced Courthouse building, with stone and terra-cotta trimmings, composition roof and embracing about 7200 square feet in area. Bids will be received for a Jail building at this time.

The entire work for Courthouse and Jail building will be let as a whole and will not be subdivided. Certified check 5 per cent. of the amount of the total bid.

All the above material and work to be furnished and done in accordance with the plans and specifications now on file in the office of the County Clerk, New Madrid, Missouri.

Plans and specifications may be had upon depositing the sum of One Hundred Dollars with the County Clerk. In case the plans and specifications are returned before the letting, and no bid is filed, the deposit will be returned. If plans and specifications are retained, to cover the cost of preparing a set of the plans and specifications.

The successful bidder will be required to fill a satisfactory surety bond in the sum of the entire contract price.

The County Court reserves the right to reject any or all bids.

COUNTY COURT OF NEW MADRID  
COUNTY,

STATE OF MISSOURI,

JOHN L. RANSBURGH,

County Clerk,

New Madrid, Missouri.

THE LINDSAY ARCHITECTURAL CO.,  
Sikeston, Missouri.

FALLS CITY CONSTRUCTION CO.,

Louisville, Kentucky.

Associate Architects.

## Erection of Jail Building for Colquitt County, Georgia

Moultrie, Ga.

Building to be erected in Moultrie, Georgia, on the lot situated on the southwest corner of First Avenue southeast and Second Street southeast.

Sealed proposals to be addressed to the Chairman of the Board of County Commissioners of Colquitt County, Moultrie, Georgia, will be received up until Twelve o'clock noon of May 16th, 1914, for the furnishing of all material and labor for the erection of a three-story jail building to be built as described in plans and specifications on file and open for inspection at the office of the Board of County Commissioners of Colquitt County, Moultrie, Georgia, and at the office of The Southern Structural Steel Company, San Antonio, Texas, and Birmingham, Alabama, architects.

All bids must be accompanied with a certified check in the sum of One Thousand Dollars, payable to the Chairman of the Board of Commissioners of Colquitt County, as a guarantee that the successful bidder will enter into a contract according to said plans and specifications and execute a bond for seventy-five per cent. of the contract price within ten days after notification of acceptance of bid. Failing to make said bond, the certified check shall become forfeited to said Board of County Commissioners of Colquitt County, Georgia, as liquidated damages.

Applications for plans must be accompanied by certified check for Twenty-five Dollars, payable to the architects, that bids will be made in accordance to the above. If a legitimate bid is made and plans and specifications are returned in good condition, the Twenty-five dollars will be refunded.

Each bid shall be signed by the full name of the bidder, and if a company or corporation, by the full name of each of the partners or officers.

Board of Commissioners of Colquitt County, Georgia, reserve the right to reject any or all proposals.

By order of the Board of County Commissioners of Colquitt County, Georgia.

A. HUBER, Chairman Board of County Commissioners of Colquitt County, Georgia.

## PAVING AND GOOD ROADS

### State Highway

STATE OF MARYLAND,  
STATE ROADS COMMISSION,  
601 Garrett Building,  
Baltimore, Md.

#### NOTICE TO CONTRACTORS.

Sealed proposals for building 7 sections of State Highway aggregating 23.74 miles in length, and one bridge, as follows:

Contract A-11—ALLEGANY COUNTY: One section of road along the National Pike from near Cumberland to the Nave's Farm road, about 1.74 miles in length. (Resurfacing.)

Contract A-B-5Br.—ANNE ARUNDEL COUNTY: Reinforced Concrete Bridge over College Creek at foot of King George street, Annapolis, along the Baltimore and Annapolis Boulevard.

Contract B-2—BALTIMORE CITY: One section along the Belair road from North avenue to city limits, about .59 mile in length. (Sheet Asphalt—Granite Block in track space.)

Contract No. 0123—KENT COUNTY: One section of road near Chestertown to Fair Lee, about 3.32 miles in length. (Gravel, Concrete or Macadam.)

Contract No. M-13—MONTGOMERY COUNTY: One section of road along the Union Turnpike from near Norbeck to Olney, about 3.67 miles in length. (Resurfacing.)

Contract No. P-10—PRINCE GEORGE'S COUNTY: One section of road from Seat Pleasant to Largo, about 2.59 miles in length. (Concrete, Gravel or Macadam.)

Contract No. P-12—One section along the State road from D. C. line to Camp Springs, about 4.77 miles in length. (Bituminous surfacing.)

Contract No. 094—SOMERSET COUNTY: One section of road from Allen to Princess Anne, about 6.16 miles in length. (Concrete or Macadam.)

Will be received by the State Roads Commission at its office, 601 Garrett Building, Baltimore, Md., until 12 M. on the 12th day of May, 1914, at which time and place they will be publicly opened and read.

Bids must be made upon the blank form contained in the book of specifications. Specifications and plans will be furnished by the Commission upon application and cash payment of \$1 for each contract, as hereafter no charges will be permitted.

No bid will be received unless accompanied by a certified check for the sum of five hundred (500) dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond and comply with the Acts of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.

By order of the State Roads Commission, this 28th day of April, 1914.

O. E. WELLER,  
Chairman.

WM. L. MARCY,  
Secretary.

### State Highway

STATE OF MARYLAND,  
STATE ROADS COMMISSION,  
601 Garrett Building,  
Baltimore, Md.

#### NOTICE TO CONTRACTORS.

Sealed proposals for building 5 sections of State Highway, aggregating about 18.40 miles in length, as follows:

Contract No. Bc-14—BALTIMORE CITY: One section of street along Hanover street, from Lee street to Baltimore street, about .51 mile in length. (Sheet Asphalt and Belgian Block.)

Contract No. Bc-3 Br.—BALTIMORE CITY: Filling in concrete bridge over Gwynn's Falls along the Frederick road.

Contract No. Ch-3—CHARLES COUNTY: One section of road from La Plata to Bel Alton, about 4.43 miles in length. (Gravel.)

Contract No. G-6—GARRETT COUNTY: One section of road between Noyes and Accident, about 2.75 miles in length. (Macadam or Concrete.)

Contract No. G-12: One section of road between Accident and Keyser, about 7.00 miles in length. (Macadam resurfacing.)

Contract No. M-9—MONTGOMERY COUNTY: One section of road from King's Valley to Clagettsville, about 3.71 miles in length. (Macadam or Concrete.)

Will be received by the State Roads Commission at its office, 601 Garrett Building, Baltimore, Md., until 12 M. on the 5th day of May, 1914, at which time and place they will be publicly opened and read.

Bids must be made upon the blank form contained in the book of specifications. Specifications and plans will be furnished by the Commission upon application and cash payment of \$1 for each contract, as hereafter no charge will be permitted.

No bid will be received unless accompanied by a certified check for the sum of five hundred (500) dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond and comply with the Acts of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.

By order of the State Roads Commission, this 18th day of April, 1914.

O. E. WELLER,  
Chairman.

WM. L. MARCY,  
Secretary.

## Paving, Sewerage and Gas Pipe Lines

Rocky Mount, N. C.

Sealed proposals will be received by the Mayor and Board of Aldermen of the City of Rocky Mount, at the City Hall in Rocky Mount, N. C., until 4:30 P. M., May 5, 1914, for Street Paving, Sewerage and Gas Pipe Lines.

The work will consist of about 40,000 sq. yds. of Asphaltic or other pavement.

10 miles of Pipe Sewers from 8 to 18 inches in diameter.

10 miles of Cast-Iron Gas Pipe Lines from 4 to 10 inches in diameter.

And appurtenances.

Proposals must be marked "Proposal for Improvements."

All bids must be upon blank forms provided in the Proposal and Contract and Specifications.

Each bid must be accompanied by a certified check for at least 5 per cent. of the amount of bid as an evidence of good faith. Plans and specifications will be on file at the Superintendent's office in Rocky Mount, and at the office of the Engineer in Charlotte, and copies of the specifications, form of proposal, etc., will be mailed upon application to the Engineer at Charlotte, N. C.

The right is reserved to reject any or all bids.

L. F. TILLERY, Mayor.

C. H. HARRIS, Clerk.

Engineer:

GILBERT C. WHITE,  
Charlotte, N. C.

## Notice to Paving Contractors

Sealed proposals will be received by the County Commissioners of the County of Orange, State of Florida, at the office of the Clerk of the Circuit Court of Orange County, Orlando, Florida, at or before 2 P. M. Monday, May 11, 1914, for grading and paving with brick the following highways:

Highway No. 1—68,650 square yards. Certified check for \$2500.

Highway No. 2—22,100 square yards. Certified check for \$500.

Highway No. 3—36,900 square yards. Certified check for \$1600.

Highway No. 4—84,500 square yards. Certified check for \$3000.

Highway No. 5—84,500 square yards. Certified check for \$3000.

Proposals for each highway must be presented in a separate sealed envelope, endorsed on the outside with the number of the highway for which the proposal is made.

Each proposal must be accompanied by a certified check issued by a national bank and payable at sight to the order of the Clerk of the Circuit Court for the amount set opposite each highway in this notice.

The successful bidder or bidders will be required to give a bond equal to the amount of his or their bid or bids, such bond to be executed by a surety company, to be approved by the County Commissioners.

The County Commissioners reserve the right to reject any and all bids.

Copies of the plans and specifications and the form of contract may be obtained upon application to Mr. B. M. Robinson, Clerk of the Circuit Court, or to G. R. Ramsey, Highway Engineer, Orlando, Florida. A deposit of fifteen dollars will be required, which will be refunded when the plans and specifications are returned.

M. O. OVERSTREET,  
Chairman Board of County Commissioners.  
B. M. ROBINSON,  
Clerk of the Circuit Court.  
G. R. RAMSEY,  
Highway Engineer.

## Cement Concrete Paving

OFFICE OF PAVING COMMISSION.

Baltimore, Maryland.

Sealed proposals, addressed to the Board of Awards, care of the City Register, will be received by him at his office in the City Hall until 11 A. M. Wednesday, May 6, 1914, to grade, curb and pave with Cement Concrete the streets and alleys listed in the following contract:

*Cement Concrete Pavement Contract No. 36.*

Rutter Al.      Dolphin St.      McMechen St.  
Brevard St.      Dolphin St.      Lafayette Ave.  
Jenkins Al.      Dolphin St.      Laurens St.  
Mason Al.      Dolphin St.      Lafayette Ave.  
Mason Al.      Mosher St.      Laurens St.

Cement Concrete—10,300 sq. yds.

Certified Check—\$500.

The above figures represent the approximate quantities of the principal items appearing in the contract.

Specifications and proposal sheets can be obtained upon application to the office of the Paving Commission, City Hall. A deposit of \$5 will be required for a set of specifications covering the contract. This will not be refunded unless a bid is filed.

Plans and profiles are on file for the information of bidders in the office of the Consulting Engineer.

The Board of Awards reserves the right to reject any and all bids.

The successful bidder will be required to furnish bond and to comply with the City Charter respecting contracts.

By order of the Paving Commission.

R. KEITH COMPTON,  
Chairman and Com. Engineer.  
J. MYERS HEDIAN,  
Secretary.

Approved:  
JAMES H. PRESTON,  
President Board of Awards.

## Brick Paving and Concrete Curbing

The Board of Commissioners for Street Improvement, District No. 10, Jonesboro, Arkansas, will, on June 1, 1914, open bids and award contract for approximately Ten Thousand (10,000) square yards of brick paving and Four Thousand (4000) linear feet of concrete curbing. Bids will be opened at 2 o'clock P. M. on said day at the office of the Secretary. For specifications, information and bidder's proposal sheet, address R. H. BERGER, Secretary, Jonesboro, Ark.

## BRIDGES

### Notice to Bridge Contractors

Sealed bids will be received at the office of County Judge of Brazoria County, Texas, at Angleton, until 12 o'clock noon of Monday, May 11, 1914, for repair of concrete pier of steel highway bridge over Brazos River at Columbia, in said county, according to plans and specifications on file in office of County Judge in Angleton, Texas, and at office of J. C. Tolman Engineering Co., at Houston, Texas.

Each bid must be accompanied by a certified check for 5 per cent. of amount of bid, payable to order of J. W. Munson, County Judge, and forfeited to Brazoria County if default is made in execution of contract and bond within ten days after bid is accepted. The Commissioners' Court reserves the right to reject any and all bids.

(Signed)

J. W. MUNSON,  
County Judge of Brazoria County, Texas.

## Steel Girder Viaduct

Richmond, Va.

Sealed proposals will be received at this office until 12 o'clock noon May 5, 1914, for the construction and erection of a steel girder and "I" beam viaduct across James River at 9th street to replace a part of the present old bridge at this site.

Plans and specifications for this work can be seen upon application at the office of the City Engineer. They will be furnished prospective bidders upon deposit of \$10, which will be refunded bidders upon the return of plans and specifications in good order.

A certified check in the sum of \$1000, made payable to the City Treasurer, must accompany each proposal as a guaranty of execution of contract.

The Administrative Board reserves the right to reject any or all bids.

CHAS. E. BOLLING,  
City Engineer.

## MISCELLANEOUS

### Drainage Ditches and Canals

#### NOTICE TO CONTRACTORS.

Kinder, La.

The Kinder Drainage District Number Two of Kinder, Louisiana, will let to the lowest responsible bidder, upon sealed bids to be filed with L. M. Lafleur, Secretary, on or before 12 o'clock noon on May 18, 1914, for the following work in the construction of drainage ditches and canals within said district: The removal of approximately 573,000 cubic yards of earth in the construction of four main canals with their laterals and branches.

The clearing and partial removal of logs, stumps and debris of approximately 187 acres of right of way.

The construction of one main line railroad trestle. The removal and reconstruction of three main line railroad trestles. The removal and reconstruction of two log tram trestles.

Detailed plans and specifications are on file with J. F. Hervey, C.E., of said district, at Jennings, La., or L. M. Lafleur, Secretary, of the Board at Kinder, La.

The contractor shall be required to commence work within thirty days after signing of contract and approval of his bond, and shall remove a minimum of 60,000 cubic yards per month, and shall complete the contract within a period of ten months from date of commencement.

Contractor required to give bond of some surety company in the sum of \$40,000 for the faithful performance of contract.

All bidders shall be required to accompany each bid with a certified check of some bank domiciled in Louisiana, payable to T. T. Nixon, President, in the sum of \$1000, as guarantee that if his bid is accepted he will execute contract and furnish the bond within ten days after notice of acceptance.

Bidder's blanks will be furnished upon application to J. F. Hervey, C.E., Jennings, La., or L. M. Lafleur, Secretary, Kinder, La.

Commissioners reserve the right to reject any and all bids.

Witness my official signature hereto at Kinder, Louisiana, April 13, 1914.

T. T. NIXON,  
President of Kinder Drainage  
District Number Two.

## Metal Fence

Sealed bids will be received and opened by the Board of County Commissioners at 2 P. M. May 5, 1914, for furnishing metal fence for county jail; also, for concrete foundation and putting up fence. On application to R. Whyte, Fort Pierce, Fla., all necessary information will be given.

J. E. FULTZ,  
County Clerk.

# PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

## MISCELLANEOUS

## School Furniture and Fixtures

Office of the Superintendent, City Public Schools.

Charleston, S. C., April 22, 1914.

Bids will be received up to 12 o'clock noon Monday, June 15, 1914, for furniture and fixtures for the remodeled Courtenay School. Details and specifications at this office. The Board of School Commissioners reserves the right to accept any or to reject any or all bids.

A. B. RHETT,  
Superintendent.

## Materials for Water Supply

New Iberia, La., April 21, 1914.

Sealed proposals will be received by the Board of Trustees of the City of New Iberia until six o'clock P. M., May 5th, 1914, for furnishing the material below described:

- 500 tons class C 6-inch bell and spigot, cast from pipe.
- 45 fire hydrants, 2½-inch hose connections, three to four feet depth from curb line, with 4-inch inlet.
- 20 6-inch gate valves, bell ends, 300 lbs. hydraulic pressure.
- 10 tons 4 inch class C bell and spigot, cast iron pipe.
- 25 6x6x6 T's, bell ends. Class D.
- 50 6x6x4, T's, bell ends. Class D.
- 6 6x6, L's bell ends. Class D.
- 1000 lbs. tarred rope oakum.
- 18,000 lbs. pig lead.

20 street boxes, 3-foot extensions for 6-inch valves. All pipe and fittings to be in conformity with standard specifications for cast-iron pipe and fittings, as adopted May 12, 1908, by the American Water Works Association, the City reserving the right to reject any and all bids, or to select any part of a proposal, as will be to the best interest of the City of New Iberia, both in price and material. All prices to be quoted on material F. O. B. New Iberia, and payable within ten days from date of delivery of material in good order here.

J. P. SUBERBIEILLE,  
Purchasing Agent.

## Garbage Reduction Equipment

City of Akron, Ohio.  
Sealed proposals will be received at the office of the Director of Public Service, Akron, Ohio, until twelve o'clock noon of the fifteenth day of May, 1914, and then publicly opened and read, for the furnishing and erection of Garbage Reduction Equipment. This equipment to be placed in the buildings shown on the plans accompanying the specifications.

Bids are to be based upon the specifications prepared under the direction of the Akron City Council.

Payment will be made as stipulated in the form of contract for the performance of the above work, which form of contract is on file in the office of the Director of Public Service.

Copies of the plans, proposal forms, specifications and forms of bonds and contract can be seen at the office of the consulting engineer, R. Winthrop Pratt, Hippodrome Bldg., Cleveland, Ohio, or may be obtained by prospective bidders upon depositing fifteen dollars (\$15), which sum will be refunded on return of the plans and specifications on or before the first day of June, 1914, if same are in good condition when returned. Extra copies of the specifications may be obtained from the consulting engineer upon payment of two dollars (\$2) for each copy, which sum will be refunded if returned copies are in good condition.

Each proposal shall contain the full name of every person, firm or corporation interested in the same, and shall be accompanied by a certified check for the sum of five thousand dollars (\$5000), or by a bond with surety or sureties satisfactory to the Director of Public Service for the same amount.

Said bond or certified check is required as a guarantee that if the bid is accepted a contract will be entered into and the performance of it properly secured.

The contract bond will be for fifty (50) per cent. of the amount of the contract.

The Council of the City of Akron reserves the right to reject any or all bids, waive any informalities in the bids received, and to accept any bid which it deems most favorable to the City of Akron, Ohio.

By order of the Akron City Council.  
IRA A. PRIEST, Clerk.

## Machinery and Material

Bids will be received and publicly opened May 5, 1914, at the Town of Aransas Pass, Texas, for the purchase by the town of the following material:

Cast-Iron Pipe and Fittings, Class B.  
Standard Fire Hydrants.  
Water Gate Valves.  
1 Tank and Tower, 60,000 gals. capacity, 12 ft. to bottom of tank.

1 45 H. P. Oil Engine.  
1 35 K. V. A. 3-phase 60-cycle A. C. Generator.

1 25 H. P. Oil Engine.  
18 K. V. A. Generator.  
1 500 G. P. M. 2-stage Centrifugal Pump.  
1 300 G. P. M. Triplex Pump.  
1 Switchboard.

Pole Line material:  
Cement C. L. Brick C. L. Sand C. L.  
Gravel C. L.

Full list of quantities and specifications may be had by addressing M. Griffin O'Neil & Sons, Dallas, Texas.

JESSE J. TODD, Mayor;  
C. E. HENRY,  
G. E. GUSTAFSON,  
Commissioners.

## Fire Alarm System

New Iberia, La., April 21, 1914.

Sealed proposals will be received by the Board of Trustees of the City of New Iberia until six (6) o'clock P. M., May 5th, 1914, for furnishing:

One Complete Fire Alarm Electric System, consisting of 20 Repeating Alarm Boxes, 1 magneto electric generator for central fire station, switchboard, two circuit storage battery sets, Automatic blowing machine, punching register and wire etc., to install same; prices are for the complete system in operation; the city will do all wiring under the supervision of the successful bidder, who will connect the apparatus; terms, payable upon completion of work to the satisfaction of the Trustees of the City of New Iberia, La.

The right is reserved to reject any or all bids.

J. P. SUBERBIEILLE,  
Purchasing Agent.

## INDUSTRIAL NEWS OF INTEREST

**Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.**

## Extensive Paving Contracts.

At a recent meeting of the City Commissioners of Raleigh, N. C., contract was awarded to Robt. G. Lassiter of Oxford, N. C., for 120,000 square yards of asphalt pavement in the construction of which "Aztec" asphalt will be used. This contract was awarded in addition to a previous one to the same contractor for 40,000 square yards of pavement in which "Aztec" asphalt was used. The Southern sales agent for the handling of "Aztec" as made by the United States Asphalt Refining Co., 90 West St., New York, is Geo. B. McGrath, Citizens' Bank Bldg., Norfolk, Va.

## Farm Land for Sale.

A tract of land containing 1120 acres, situated in a general farming section where corn, cotton, sugar cane, vegetables and other farm products are successfully raised, is offered for sale by George L. Colburn, Lake City, Fla. The tract is situated in Suwanee county, Florida, three miles from the town of O'Brien, on the main line of the Atlantic Coast Line Railroad. It is stated that two main roads leading to O'Brien cross the land, and that a number of improved farms adjoin it, and the land is offered at \$6.00 per acre. Full information may be obtained by addressing Mr. Colburn.

## New Treasurer Appointed.

In announcing the election of Mr. Harrison J. Barrett as treasurer and director of the Wm. J. Oliver Mfg. Co., Knoxville, Tenn., Mr. Wm. J. Oliver, the president of the company, states that his diversified interests require his personal attention to such a degree that it was necessary to secure the services of some one well versed in financial affairs to handle the company's constantly increasing business. Vice-President and General Manager L. E. Wooten, who has had long experience in the manufacturing side of the business, will carry

on that department, and it is planned to keep the manufacturing business entirely separate from President Oliver's other interests. The Oliver company is a well-known manufacturer of contractors' and other equipments, dump cars, logging cars, Oliver chilled plows, etc. Its extensive plant and excellent location at Knoxville specially fit it for handling the growing demand in the South for these lines. The development of the company's business requires the services of a treasurer familiar with financial matters to handle its growing requirements, and Mr. Barrett was selected with this feature in view.

## Textile Week in Boston.

During the present week there is being held in the Mechanics' Building, Boston, one of the greatest displays of textile machinery, mill supplies and power equipment that has ever been shown in one place. Two large national conventions are being held in connection with the exhibition and the vital questions of the industry are being discussed. These are the National Association of Cotton Manufacturers and the New England Association of Commercial Engineers. Several hundred members of the Southern Textile Association are attending the exhibition, and Tuesday was set apart as "Southern Textile Day." Six acres of space are devoted to the exhibits, the majority of which are in active operation, including automatic looms and warp-tying machines. The processes of manufacturing textile goods are shown from the handling of the raw materials through the transforming into yarn and thread, and on to the spooling and spinning machines, and the subsequent processes by which the finished goods are turned out. It is stated that practically every known kind of textile machine is on exhibition, so that the show is of great educational value. This is the Fourth National Textile Exhibition, and among the exhibitors are the following companies:

American Chain Co., Bridgeport, Conn.  
E. B. Badger & Sons, Boston.

Clipper Belt Lacer Co., Grand Rapids, Mich.

Holtzer-Cabot Electric Co., Brookline, Mass.

Jewell Belting Co., Hartford, Conn.

F. W. Lieberknecht & Co., Brookline, Mass.

The Texas Co., Boston.

Albany Lubricating Co., New York.

American Enameling Brick & Tile Co., New York.

American Moistening Co., Boston.

American Steam Gauge & Valve Mfg. Co., Boston.

American Tool & Machine Co., Boston.

Ashton Valve Co., Boston.

Ashworth Bros., Inc., Fall River, Mass.

Borne Serrymar Co., Boston.

Boston Belting Co., 84 Linden Pk. St., Roxbury, Mass.

S. F. Bowser & Co., Inc., Fort Wayne, Ind.

Buckeye Engine Co., Salem, O.

H. W. Butterworth & Son Co., Philadelphia, Pa.

A. M. Byers Co., Boston.

Carrier Air Conditioning Co. of America, 39 Cortlandt St., New York.

Chapman Valve Mfg. Co., Boston.

Clemson Agricultural College, Clemson College, S. C.

Cling Surface Co., Buffalo, N. Y.

Stuart W. Cramer, Charlotte, N. C., and 173 Tremont St., Boston.

Crompton & Knowles Loom Works, Worcester, Mass.

Curtis & Marble Machine Co., Worcester, Mass.

Dodge Manufacturing Co., Boston.

Draper Co., Hopedale, Mass.

Easton & Burnham Machine Co., Pawtucket, R. I.

T. C. Entwistle Co., Lowell, Mass.

Evans Mill Supply Co., Boston.

Fales & Jenks Machine Co., Pawtucket, R. I.

William Firth, 201 Devonshire St., Boston.

F. W. Foster & Sons Co., 97 Haverhill St., Boston.

Garlock Packing Co., Boston.

General Electric Co., Schenectady, N. Y.

The Griscom-Russell Co., Boston.

Harrison Safety Boiler Works, Boston.

Holyoke Machine Company, Worcester, Mass.

Ingersoll Rand Co., New York.

Jefferson Union Co., Lexington, Mass.

Keystone Lubricating Co., Boston.

Arthur D. Little, Inc., Boston.

The Lunkhenberg Co., Boston.

Mason Machine Works, Taunton, Mass.

Mason Regulator Co., Boston.

## To Sewer Contractors

Sealed proposals on blank forms furnished by the City and addressed to "The Board of Sewerage Commissioners, Lancaster, S. C.", will be received until 3 o'clock P. M., May 27, 1914, for furnishing all material and labor for the construction of a system of sanitary sewers at Lancaster, S. C., as per plans and specifications adopted by them.

The work will consist of approximately 11 miles of pipe sewers from 8 to 15 inches in diameter.

Each bid must be accompanied by a certified check, made payable to the Mayor, for Two Thousand Dollars (\$2000.00).

The right is reserved to reject any or all bids.

Plans and specifications can be seen at the office of the City Clerk, and at the Savannah offices of the engineers, and specifications may be had by writing to the engineers at Box 582, Savannah, Georgia.

## Engineers:

H. S. JAUDON ENGINEERING CO., Box 576, Atlanta, Ga.

J. M. HOOD, Mayor.

LEROY SPRINGS,

Chairman, Sewerage Commission.

JOHN CRAWFORD, Clerk.

## Gas Plant

Sealed bids will be received and opened May 4, 1914, by C. D. Hammond, Commissioner of Public Works and Utilities of St. Petersburg, Fla., for a complete Gas Plant.

Plans may be obtained from the Engineers on deposit of \$5.

Specifications will be sent upon request.

C. D. HAMMOND,  
Commissioner of Public Works,  
St. Petersburg, Fla.

The J. B. McCRARY CO., Engineers,  
1408-17 Third National Bank Building,  
Atlanta, Georgia.

Massachusetts Fan Co., Watertown, Mass.  
The Morse Chain Co., 141 Milk St., Boston.

National Tube Co., Pittsburgh, Pa.

Pratt & Cady Co., Inc., Boston.

R. & J. Dick, Ltd., 90 Chambers St., New York.

Wm. C. Robinson & Son Co., Commercial Wharf, Boston.

Saco Lowell Shops, Boston.

Wm. Sellers & Co., Inc., Philadelphia.

The Underfeed Stoker Co. of America, Boston.

Walworth Mfg. Co., South Boston.

Westinghouse Electric & Mfg. Co., Boston.

Whitin Machine Works, Whitinsville, Mass.

## TRADE LITERATURE.

## Graphic Arts and Crafts Year Book.

The sixth volume of the Graphic Arts and Crafts Year Book has been issued. It is a composite illustration of the progress in the graphic arts and correlated crafts. It is correctly called the American annual review of the printing and allied industries, presented with a high degree of merit in its color plates and press work. The editorial articles and illustrations appearing in the different sections of this very large volume are the products of leaders in this progress. The book is distinctive in bringing together the interests of the printer and user of printing and illustrative work. The specimens of work shown cover the graphic arts field and represent standards in engraving and printing, and serve as a guide of value to engravers, printers and others seeking models for their workmanship in these lines. The information goes into details of papers, inks, colors schemes and illustrations. The various subjects considered are thoroughly treated under appropriate headings, the range of the subjects comprehending the wide field of interest to publishers and advertisers. The 10 sections into which the book is divided comprise the editorial and review sections, advertising review and critique, engraving and platemaking, typography, pressroom, paper and supplies, the bindery, office and plant efficiency, a directory of manufacturers and supply houses of the printing and allied crafts, and an index and finding list containing the addresses of leaders in the various lines of production connected with the graphic arts. The endeavor, as expressed by Walter L. Tobey, the editor of the volume, is to aid in attaining the highest efficiency in the production and use of printing. The book is issued by the Graphic Arts Press, Hamilton, Ohio.